SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1a. REPORT SECURITY CLASSI Unclassified — AD-A203 301 — TRICTIVE MARKINGS — DTIC FILE COPY (2)

2a. SECURITY CLASSIFICATION AUTHORITY — RIBUTION/AVAILABILITY OF REPORT: Approved for public release; Distribution unlimited

2b. DECLASSIFICATION/DOWNGRADING SCHEDULE

4. PERFORMING ORGANIZATION REPORT NUMBER(S): 441-88

5. MONITORING ORGANIZATION REPORT NUMBER(S)

6a. NAME OF PERFORMING ORGANIZATION: US Army-Baylor University Graduate Program in Health Care Admin/HSHA-IHC

6b. OFFICE SYMBOL (If applicable)

7a. NAME OF MONITORING ORGANIZATION

6c. ADDRESS (City, State, and ZIP Code): FT Sam Houston, TX 78234-6100

7b. ADDRESS (City, State, and ZIP Code)

8a. NAME OF FUNDING/SPONSORING ORGANIZATION

8b. OFFICE SYMBOL (If applicable)

9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER

8c. ADDRESS (City, State, and ZIP Code)

10. SOURCE OF FUNDING NUMBERS

PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification): A Study of Health Record Control at Reynolds Army Hospital, Ft. Sill, Oklahoma

12. PERSONAL AUTHOR(S): Captain Raoual B. Dionne

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
Study	FROM JUL78 TO APR79	APR 79	108

16. SUPPLEMENTARY NOTATION

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	Medical Records; Outpatient Services; Record Accountability (SDD)

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

This study examines the neccesity of maintaining medical record accuracy and accountability to facilitate good patient care. This paper focused on how the military mission could be hindered by a deficient system. Keywords: Record Management, Health Information, Military Medicine,

DTIC ELECTED 22 JAN 1989 S E D

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT: ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS

21. ABSTRACT SECURITY CLASSIFICATION

22a. NAME OF RESPONSIBLE INDIVIDUAL: Lawrence M. Leahy, MAJ(P), MS

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22c. OFFICE SYMBOL: HSHA-IHC

DD Form 1473, JUN 86 — Previous editions are obsolete. — SECURITY CLASSIFICATION OF THIS PAGE

A STUDY OF HEALTH RECORD CONTROL AT REYNOLDS ARMY HOSPITAL FORT SILL, OKLAHOMA

A Problem Solving Project

Submitted to the Faculty of

Baylor University

In Partial Fulfillment of the

Requirements for the Degree

of

Master of Health Administration

By

Captain Raoul B. Dionne, MSC

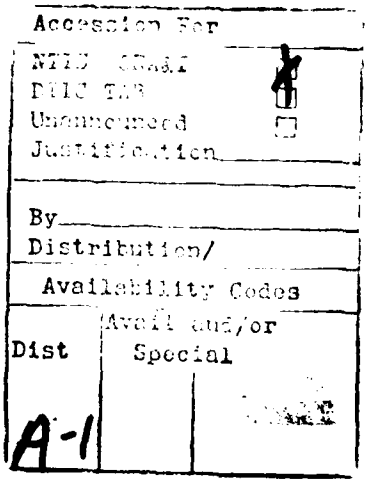
Waco, Texas

April, 1979

ACKNOWLEDGMENT

This writer wishes to express his sincere appreciation to Colonel Sam T. Seely, Medical Service Corps, Executive Officer of Reynolds Army Hospital, for his cooperation during the course of this study.

Special acknowledgment is extended to Captain Paul P. Press, Chief, Patient Administration Division, and to the entire staff of the Patient Administration Division, as well as to the staffs of the Troop Medical Clinics for their patience, cooperation and responsiveness.



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INTRODUCTION

General Information

The maintenance of medical records on the sick and injured is not a recent innovation. The history of medical records runs parallel with the history of medicine. Recordings of medical treatment in ancient times are detected on polychrome murals found in caves of the Stone Age, and silhouettes showing amputations and other medical and surgical procedures appear on the walls of Paleolithic caverns of Spain that date back to about 25,000 B.C.[1]

Although these archaic forms of hieroglyphics would not be acceptable as medical records (as the term is used today), they do illustrate that the recording of medical information has been considered important for generations.[2]

The value of the medical record, as espoused by the American Hospital Association, is that: (1) The record is used to provide the best possible care for the patient; (2) The record is a medium of education for the medical staff and the paramedical personnel; (3) The record is used as a basis for comparative studies and research; and (4) The record provides legal protection for all concerned.[3]

Traditionally, the emphasis has been on providing inpatient care as opposed to ambulatory or outpatient care. Consequently, the resources and attention given to the maintenance of records have been similar in nature. In recent years, however, rapid advances in medical technology, extraordinary increases in the cost of care and the emergence of the hospital outpatient facility as the provider of primary care for increasingly greater segments of the population have all contributed to an increased utilization of ambulatory health care systems.

An indication of the degree to which outpatient services have assumed prominence may be obtained through a comparison of the national demand for such services over a period of time. Between 1963 and 1973, the number of patient visits to organized outpatient departments in the United States increased from 47.7 million to 101.6 million--an increase of 113%. Overall, outpatient visits of all types to hospitals increased by 49.6% between 1970 and 1975, and the trend shows no signs of reversing.[4]

It is an almost universally acknowledged fact that the maintenance of high quality of medical records is essential for good patient care. Because of the essentially episodic and fragmented nature of ambulatory health care services, the outpatient medical record assumes critical importance as a vehicle for medical communication and a mechanism for effectively achieving continuity of care.

In relative contrast with the civilian health care sector, government institutions have traditionally maintained a greater interrelationship between their inpatient and outpatient services. As a result, the military medical services have developed a standardized outpatient medical record system which is flexible and readily adaptable to changing requirements.

Despite the relatively greater emphasis placed on outpatient services within the Armed Forces, military health care providers have encountered difficulties. Deficiencies and problem areas in the management of outpatient medical records within the military health care delivery system have been extensively documented. A 1970 study conducted by the Westinghouse Electric Corporation found that ineffective procedures for filing, retrieving and maintaining outpatient medical records were a common problem in all the institutions that they visited.[5] A 1972 study of ten US Army hospitals by the Comptroller of the Army revealed that poor handling of records was the most common cause of patient dissatisfaction with the Army system of ambulatory health care delivery, and the third greatest irritant to hospital staff members.[6] Considering this clear indictment, the emphasis on ambulatory care, and its inevitable growth, a firm commitment is needed to provide a responsive, efficient outpatient records system.

Medical Department Activity Setting and History

The US Army Medical Department Activity, Fort Sill, Oklahoma, had its beginning in January 1869 when the fort was first occupied by General Sheridan as a base of operations against the Indians. The hospital, housed in tents in a grove of trees, provided basic field medical care. During 1870, plans were made for a permanent facility with completion in 1875. The building consisted of a central, two-story administration block and mess, an observation tower above, and ward wings to the east and west with a capacity of 24 beds. These buildings are still in use by the Post today. In 1899, the Apache prisoner of war hospital was constructed to the rear of the old facility. It was in this building that the Apache war chief Geronimo died of pneumonia in 1909. This building was continued in use as an Indian hospital until 1914. A 36-bed ward building was added in 1913, raising the capacity to 60 beds. Upon the advent of World War I in 1914 and the arrival of a division of National Guard troops, the need for an even larger hospital was urgent, and a complete temporary base hospital of 500-bed capacity and ten temporary wards was constructed around the Post hospital. The temporary wards were demolished in 1918. An additional permanent hospital ward wing, plus specialized clinics, were added to the east in 1925. In 1934, extensive additions were begun on the hospital. An administration building,

nurses' quarters and a medical department barracks were erected and completed in 1936.

World War II began, and once more, the troops supported increased. Not only did the post population increase, but the hospitalization rate climbed due to the new soldiers adapting to a new climate and their poor personal hygiene standards. Additionally, the sick and wounded began returning from overseas. These conditions made expansion necessary, and in 1941, the Annex Hospital was constructed, giving the Post hospital an additional 1200-bed capacity. The temporary annex continued in partial use as a medical facility for many years past its planned life.

In January 1960, criteria for a new health facility began to be developed, and in 1965, the present hospital was dedicated and named for Major General Charles Reynolds. It is a designated uniformed services hospital which provides medical care to approximately 65,000 military personnel, dependents, retired personnel and their dependents, and civilian personnel authorized medical care.

The Fort Sill Medical Department Activity's present complex is composed of 38 buildings on Fort Sill and satellite activities on other installations. The main hospital building, a six-story structure, is located at the south end of Fort Sill. It presently maintains and operates 106 hospital beds for definitive inpatient treatment which includes most phases of medical and surgical care.

Outpatient services are provided in 31 clinics and eight ancillary services centers scattered throughout the Medical Department Activity's separate facilities. Average monthly outpatient visits exceed 38,000. Heavy workloads, extensive diversity of activities and considerable limitations imposed by the wide dispersion of its facilities have had considerable impact upon the complexity of the Fort Sill Medical Department Activity's outpatient records activities.

Conditions Which Prompted the Study

The study of management and control of health records at the Fort Sill Medical Department Activity was initiated at the request of the Executive Officer of the hospital. He indicated that his attention was being frequently directed to the nonavailability of health records through patient complaints, expressions of dissatisfaction on the part of hospital personnel and in the findings of inspectors from outside agencies, such as the Army Audit Agency or the Health Services Command Inspector General. The Medical Department Activity had engaged in repeated efforts to recognize and correct deficiencies in the current system. The Executive Officer indicated, however, that the persistence of deficiencies in current procedures was resulting in patient inconvenience and mistrust of the system on the part of the hospital physicians, as well as hindering the success of military operations. These factors were causing considerable frustration on the part of providers and

recipients of care and were having an unacceptable impact on the delivery of care within the Medical Department Activity. Subsequent interviews with administrative and professional personnel, selected patients and commanders of military units involving the delivery of ambulatory care confirmed the Executive Officer's conclusion that a study of health record management and control procedures was warranted.

It is necessary for the US Army to be able to assess an individual soldier's health status relative to his ability to meet standards judged necessary to function adequately in combat. Because of this and the continued emphasis on ambulatory care, it is imperative that a system of health records management be developed to assure the availability of the medical record during the physician/patient encounter and during military deployment.

The study was directed toward identifying areas of weakness and providing recommendations for increasing control over, and thus, the availability of, health records.

Statement of the Problem

To determine the best system to account for health records at various stages of use or storage throughout the health facilities of the Fort Sill Medical Department Activity.

Objectives

The objectives of this study were to:

1. Analyze the current practices for controlling health records to determine significant problems of organization and implementation.

2. Evaluate relevant documents and publications concerning the control of health records.

3. Prepare appropriate recommendations for improving organization and implementation.

4. Prepare implementing guidelines.

5. Prepare system controls.

Limitations

The following limitations were placed on this study:

1. Initial research revealed little civilian literature on the subject.

2. Any solution could not include a requirement for additional personnel authorizations within the Medical Department Activity.

3. Any solution could not include capital investments of more than $1,000.

4. Any recommendations for solutions had to permit compliance with Army Regulations.

Criteria

The proposed recommendations of this study should result in the following:

1. Provide continuous accountability for records charged out.

2. Inform Records Room personnel of the location of the records which were transferred from one outpatient clinic to another.

3. Provide for the return of health records to the appropriate repository within four working days, unless properly identificd as being retained by professional personnel for legitimate reasons.

Assumptions

The following assumptions were considered for this study:

1. The troop concentration at Fort Sill would remain relatively stable throughout the project period.

2. Senior personnel involved in the project would remain relatively stable (Troop Medical Clinic supervisors, Adjutant General, commanders of units serviced).

3. The Fort Sill mission to include the Medical Department Activity would not be substantially altered.

4. The Medical Department Activity Commander and key staff personnel would continue to support the program.

Definitions

Charge-out card: An overprinted form, 3 x 5 inches, used to maintain accountability for the record while it is removed from the records repository. The card contains the patient's name, the patient's military organization, clinic to which the

patient is taking the medical record, and the charge-out date.

Central Outpatient Records Section (CORS): That element responsible for obtaining, receiving, reviewing, processing, filing and disposing of all outpatient medical records and health records for patients treated on an outpatient basis at the Fort Sill hospital.

Health Record: A permanent, continuous and locally available outpatient medical record which is initiated and maintained for all active duty service members.

Patient Recording Card: A plastic card, 1 3/4 x 3 1/2 inches, embossed with information identifying the patient, originator and custodian, used to simplify the imprinting of such information on diagnostic reports.

Service Member: Any member of the US Army, Navy or Air Force who is called to active service or duty for training for a period of not less than 30 days. Included are cadets of military academies and military prisoners.

Troop Medical Clinic: A medical treatment facility limited to screening, treatment of minor illnesses and injuries of service members, and is usually located near troop unit concentrations.

Research Methodology

The available literature, to include military literature, concerning the accountability, control and distribution of medical records was reviewed. Texts on hospital administration and medical record department administration were reviewed. Professional journals which contained articles concerning accountability, control and distribution problems were also reviewed.

On-site analyses were conducted to determine the current procedures and their effectiveness in controlling health records. Several days of these on-site investigations were devoted to informal interviews with staff and supervisory personnel to ascertain their views of the current system, to include its strengths and weaknesses.

Interviews were unstructured. The general purpose and objectives of the study were explained, and each individual's ideas concerning the functioning of the overall health records system were sought. Central Outpatient Records Section personnel, Troop Medical Clinic staffs, administrative support personnel in the clinics and Fort Sill Adjutant General personnel were interviewed at length in an attempt to determine the precise policies and procedures being followed.

To confirm and/or reinforce the information provided by these individuals, numerous observations were made within the clinics and the outpatient records section. These observations also

provided for a better understanding of the normal routines of the employees and determined the degree to which these activities contributed to the problem area.

The number of active records in the repositories was determined by linear measurement. The number of records charged out from the repositories was determined by physical count.

The space available in each of the repositories was measured to assist in determining the impact which space and layout might have on the problem. In addition, equipment, work arrangements and environmental aspects such as heating, air conditioning and lighting were evaluated.

Review of the Literature

The Joint Commission on Accreditation of Hospitals has, as one of its principles, a requirement for a hospital to maintain records that are documented accurately and in a timely manner, are readily accessible and permit prompt retrieval of information.[7] In part, Standard I requires that an adequate medical record be maintained for every individual who is evaluated or treated as an inpatient, outpatient or emergency patient.[8]

The content of the individual patient's record is being referred to more and more in the continuing care of the patient. With the emphasis on quality of care and with the patient being treated by more than one physician during his lifetime, rather

than a single family physician, the physician is utilizing past medical records to a much greater extent. This sometimes makes it possible to avoid duplicating expensive tests that a patient may have had a short time before as an outpatient or on another physician's service. It also assures that abnormal test results can be evaluated and followed up if medically indicated.[9] Simply stated, the medical record provides for better continuity of care.

If the record is to be a useful document, it must be available to the user in a timely fashion. This can be ensured through the use of an adequate filing system. The reasons for filing health records are to protect them when they are not in use and to make it easy to find them again - quickly - whenever they are needed.[10] A filing system should enable one to identify a patient's record, find that record in the filing system and locate the record when it is taken out of the file.[11]

The impact of increased utilization of ambulatory care on records is tremendous. A sample population of 10,000 will generate approximately 1,400 inpatient admissions per year requiring approximately 4,000 incidents of record creation, storage and/or retrieval. This same population will generate approximately 50,000 outpatient visits, requiring approximately 150,000 episodes of record creation, storage and/or retrieval--37.5 times the record activity for inpatient services.[12]

It must be emphasized, though, that while the record is kept for the benefit of the patient, the physician and the hospital, it is the property of the treatment facility. Therefore, the facility, subject to applicable legal provisions, may restrict the removal of the record from the medical record files or premises, determine who may have access to it and define the kind of information that may be taken from it.[13]

Certain Army directives are quite precise. Army Regulation 40-400 establishes procedures for hand carrying the original outpatient record.[14] Certain control models provided by the Army for outpatient records imply that outpatients are allowed to hand carry their records for clinic or consultation visits.[15]

The nonmilitary literature does not address the degree to which a patient should have direct access to his original record. Some authors strongly advocate providing the patient with a complete copy of his original record. A study of patients who received copies of their record revealed that they were more careful in taking medications, made improvements in their diets, stopped smoking and had fewer worries about their health.[16]

Generally speaking, in a manual system there are two systems of filing. Alphabetical filing is suitable for small institutions or for those with low turnover rates. The second type is the numerical sequence system of which there are two variations. The "unit" variation requires the assignment of numbers to patients

sequentially and the patient retains the same number on subsequent visits. In a "serial" variation, new numbers are assigned in sequence to a given patient for each episode. This technique has been modified into the serial-unit variation where previous records are incorporated into the latest number assigned.[17]

Many faciilities use patient indexes. These give summary information and lead straight to the health record. They are not, however, necessary unless they are really helpful in the overall use of the health records system.[18]

The American Hospital Association recommends a charge-out system for keeping track of records withdrawn from storage files. The most time saving method is to use the requisition as the charge-out card in a file and to keep it in the record file rather than in a separate charge-out box.[19]

Of the several articles dealing with automation of medical treatment records, only one pertained to "hard copy" records. Mount Auburn Hospital in Cambridge, Massachusettes, has a record tracing system that has bar codes printed on each patient record. A bar code is a series of bold and light black lines (such as those found on most grocery products) which correspond to an identification number assigned to each patient during the initial visit. On subsequent visits, a clerk in a clinic types a request for a patient's record on a cathode ray tube terminal. This is transmitted to the Record Department, where a clerk strokes a

light pen connected to another terminal over the bar code on the patient's record. This procedure automatically logs the record out to the requester and enters the transaction into the computer. When the record is returned, the same procedure is used to log in the record.[20]

Herr and Patrikas warn that enthusiasm for computerized systems must be tempered with the awareness that they are difficult to secure and require manual support systems of considerable magnitude.[21]

Footnotes

[1]Edna K. Huffman, Medical Record Management (6th ed., Chicago: Physicians' Record Co., 1976), p. 1.

[2]Ibid.

[3]American Hospital Association, Medical Record Departments in Hospitals: Guide to Organization (Chicago: American Hospital Association, 1962), pp. 1-2.

[4]Conrad E.A. Herr and Elaine O. Patrikas, "Keeping Track of Ambulatory Care," Hospitals (March 1, 1975), p. 89.

[5]Paul P. Brooke, Jr., MSC, CPT, "A Study to Determine Methods of Establishing Management Control Over Outpatient Medical Records Maintained at the Central Outpatient Records Room, Brooke Army Medical Center, Fort Sam Houston, Texas." (Unpublished Masters Thesis, Baylor University, 1976), p. 5.

[6]Ibid.

[7]Joint Commission on Accreditation of Hospitals, Accreditation Manual for Hospitals (Chicago: Joint Commission on Accreditation of Hospitals, 1978), p. 63.

[8]Ibid.

[9]Betty J. Neely, RRA, "Medical Records Services, Present and Future," Medical Record News, (April, 1974), p. 27.

[10]American Medical Record Association, An Instruction Guide for Organizing Health Records (Chicago: American Medical Records Association, undated), p. 21.

[11]Ibid.

[12]Herr and Patrikas, p. 91.

[13]American Hospital Association, Hospital Medical Records: Guidelines for Their Use and Release of Medical Information (Chicago: American Hospital Association, 1972), p. 8.

[14]US., Department of the Army, Health Records Army Regulation 40-403 (Washington, D.C.: Government Printing Office, 1974), paragraph 1-6.

[15]U.S., Army Health Services Command, Outpatient Medical Records Improvement Actions, Ambulatory Patient Care Program, APC Model No. 5 (Fort Sam Houston, Texas: US Army Health Services Command, 1974), p. 6.

[16]Betty Stephens, "A Simplified Health Information System for Outpatient Services," Annals of Tropical Medicine and Parasitology (January, 1978), p. 97.

[17]Herr and Patrikas, p. 91.

[18]American Medical Record Association, p. 22.

[19]American Hospital Association, Medical Record Departments in Hospitals: Guide to Organization, p. 17.

[20]L. M. Witte and J. B. Goldman, "Minicomputer Controls Medical Record Maneuvers," Hospitals (September 16, 1977), p. 120.

[21]Herr and Patrikas, p. 91.

CHAPTER II

DISCUSSION

Description of the System

Due to the time involved in conducting the study (September 1978 to April 1979) and the urgency to provide solutions to the problem, improvements were implemented as they were developed. Therefore, this chapter will describe the development of the system and analyze the problem as it has evolved throughout the course of the study.

Fundamental to the lucid understanding of a system are a knowledge of its relative position within the overall organization and its functional responsibilities. The organizational structure of the Fort Sill Medical Department Activity reflects that the Central Outpatient Records Section is subordinate to the Patient Administration Division, and that five Troop Medical Clinics are subordinate to the Department of Primary Care and Community Medicine. While it is true that the Troop Medical Clinics are the responsibility of the Department of Primary Care and Community Medicine, the personnel maintaining health records in those facilities are under the technical supervision of the Patient Administration Division (Appendix A).

The Central Outpatient Records Section and the Troop Medical Clinics are responsible for obtaining, receiving, processing, filing and disposing of all outpatient treatment records and health records within the Medical Department Activity at Fort Sill, Oklahoma. These elements' responsibilities include the processing and filing of all reports of diagnostic and therapeutic procedures and other materials which are generated during the course of the patient's treatment.

Until late in 1978, there was another organizational element known as the Troop Medical Service which operated under the supervision of the Clinical Support Division which had responsibility for providing administrative support for the Troop Medical Clinics. Chief among its support activities was the collection and distribution of health records within the Medical Department Activity. Due to the fact that the Troop Medical Service was not an authorized element of the organization, and to a determination that its activities could best be accomplished by other authorized elements, it was disbanded.

The Central Outpatient Records Section is located in two rooms near the east entrance of the main hospital bulding. The records rooms were observed to be quite convenient for walk-in patients because of their proximity to the main entrance of the building. The location of the rooms was adequately identified by

prominently displayed signs. The records rooms were considered to be in a very desirable location.

The primary records room occupied an area which measured 30 feet by 18 feet and was enclosed by four permanent walls. The front of the room faced into the main hospital waiting area and contained a counter which served as a customer service area at which requests for records were processed.

The secondary central records room occupied an area which measured 18 feet by 10 feet, and it was also enclosed by four permanent walls. By rolling a counter in front of the single access to the room, it also served as the customer service area. The only patients required to present themselves to this counter for their records are active duty personnel. Since only a very small percentage of active duty personnel's health records are maintained at the main hospital, this was not considered to be an inconvenience. Actually, this segregation of records served to reduce the congestion at the main service counter. Space, lighting and other environmental factors, with the exception of heat, appeared to be adequate. Due to the close proximity to the front entrance of the hospital and the heavy traffic through these portals, personnel working in the Central Outpatient Records Section are exposed to an almost constant rush of cold air during the winter months. This problem will be rectified during fiscal year 1981 when a major electrical and mechanical upgrade project is undertaken.

The authorized work force in the Central Outpatient Records Section consists of eight Civil Service personnel. All positions were filled throughout the duration of this study. This staff was occasionally augmented by other Patient Administration Division personnel and Red Cross volunteers on an occasional or part-time basis.

In the initial stages of this study, the Central Outpatient Records Section was organized to operate one shift five days a week. Personnel worked from 7:30 A.M. to 4:30 P.M. Due to a serious backlog in filing, two additional Civil Service personnel in a temporary status and three active duty personnel from other organizations were utilized to reorganize into two shifts. Under this reorganization, five personnel worked from 3:30 P.M. to 11:00 P.M. The evening shift retrieved records for emergency room patients and filed diagnostic reports and the results of therapeutic procedures in the records. Two additional active duty personnel were provided by the hospital to assist in the retrieval and distribution of records and to provide supervision. One was from the former Troop Medical Service and the other was a noncommissioned officer assigned in an excess status.

Over a period of four months, with these additional personnel, the backlog was eliminated and the Central Outpatient Records Section operated at an acceptable level of efficiency.

Unfortunately, at the time of writing of this study, all but two of the augmentation personnel have been eliminated through attrition or other exigencies.

There are five Troop Medical Clinics (TMC's) interspersed throughout Fort Sill to coincide with troop concentration (Appendix C).

Troop Medical Clinic #1, located in the 400 area, provides initial medical care to service members of 16 military organizations. It maintains from 5000 to 8000 records, depending on seasonal fluctuation of assigned strength (Appendix D). Troop Medical Clinic #1 sees approximately 50 patients daily for which health records must be pulled. Additionally, 80-90 records are pulled for patients who have appointments at the hospital or in other clinics on post. In addition to a physician's assistant and a medical specialist, one medical records clerk is authorized and assigned. This staffing pattern is deemed adequate. Physical facilities for records storage and maintenance as shown in Appendix B were found to be adequate in all respects.

How many records maintained?

Troop Medical Clinic #2 is located in the 6000 area and services ten military organizations, all of which have the mission of training basic recruits. An average of 40 patients, for whom health records must be pulled, are treated at this clinic daily. It was impossible to determine the number of records which were pulled daily for visits or treatment outside of the clinic. As

it was explained by Troop Medical Clinic personnel, this number would vary considerably from day to day, as occasionally, a few are pulled versus pulling an entire battery's records for the purpose of administering immunizations. This clinic is staffed with one physician's assistant, a medical specialist and one medical record technician. This staffing was deemed adequate. Physical facilities for records storage and maintenance, as shown in Appendix B, were found to be adequate in every respect.

Troop Medical Clinic #3, located in the 2900 area, services 13 military organizations which are outlined in Appendix D. Because some of these are training units, the number of records maintained in this Troop Medical Clinic vary seasonally. At the time of this writing, there were 4700 records maintained in this facility. Approximately 80 records are pulled for daily patient care, and an additional 90 for patients to be seen in other clinics elsewhere on Post. In addition to the physician's assistant and medical specialists, two medical records technicians staff this clinic. This was deemed adequate. The physical facilities for records storage and maintenance, as shown in Appendix B, were found to be adequate in all respects.

Troop Medical Clinic #4, located in the 3400 area, is the busiest clinic. It must maintain in excess of 8000 records in order to service the 21 units for which it is responsible. This clinic must handle approximately 130 records daily in order to

support the patients it treats. Additionally, another 30 records must be pulled for patients who have appointments elsewhere on Post. This clinic has staffing similar to Clinic #3, but is often augmented by medical technicians from some of the units which it services. Although taxed to the limit, physical facilities for records storage and maintenance, as shown in Appendix B, were found to be adequate.

Troop Medical Clinic #5 is located in the 5500 area adjacent to the airfield. It services nine of the smallest organizations on Fort Sill. As such, it maintains only 600 health records. On a daily basis, an average of 13 patients are seen in the clinic, but an additional 20 records must be pulled for patients being treated elsewhere on Post. Staffing authorized for this clinic includes one aviation medicine medical officer, two medical specialists, and one medical records specialist. Due to the fact that one of the organizations supported provides, on a full-time basis, an administrative clerk to assist in the processing of aviation physicals, and due to the low patient census, the staffing of this clinic with a medical records specialists is deemed unnecessary. Physical facilities for records storage and mantenance, as shown in Appendix B, were found to be adequate.

There is a major exception to the policy that all health records be filed at the health facility that services the military member's organization. At the beginning of this study, all female

personnel on Post were treated at the main hospital. Consequently, their health records were stored at the hospital. In order to capitalize on the limited amount of time available for training recruits, in Jan 1979, it was decided that female personnel in basic training organizations would be treated by the Troop Medical Clinic that treated their male counterparts for all but gynecologically-related problems. From this point in time, their health records were maintained in their servicing Troop Medical Clinic, but all other female personnel on Post continued to be treated at the main hospital.

Initially, there were four avenues through which a health record found its way to its ultimate repository. Officer personnel reporting to Fort Sill for the purpose of attending training courses were processed by the Officer Student Battalion which collected their health records and forwarded them to the servicing Troop Medical Clinic.

Initial recruits into the Army reported to the Reception Station on Fort Sill where they were administratively processed and held, awating medical processing. Medical processing consisted of the initiation of a military health record, administration of immunizations, dental screening examination, an optometric evaluation and a hearing evaluation. Once completed, the health record was forwarded to the Quality Control Section of the Reception Station which is responsible for ensuring that all inprocessing

activities are accomplished prior to the first day of training for recruits. When a recruit was transferred from the Reception Station to a training unit, his health records accompanied him. The records were again screened by the training unit personnel and then forwarded to the servicing Troop Medical Clinic. This procedure has not changed.

Other enlisted personnel who arrived at Fort Sill for the purpose of attending training courses reported to the Adjutant General's Enlisted Personnel Section. Their records were collected by this section and forwarded to the servicing Troop Medical Clinic.

All other personnel reporting to Fort Sill, either from other military installations or from training units on Fort Sill upon completion of their training, for the purpose of being assigned to permanent military organizations reported to the Adjutant General. Here, they were administratively inprocessed and further assigned to a military unit on Fort Sill. Upon reporting to their organization, personnel were required to tour several activities within the organization and throughout Post, to include the Troop Medical Clinic, at which time they would turn in their health record. In December 1978, partly due to the fact that a considerable number of soldiers never turned in their health records to the Troop Medical Clinics, and probably due to a desire on the part of the post commander to minimize the time required for

individual soldiers to inprocess at Fort Sill, a Central Processing Center was established.

Now, all permanent party personnel report to the Central Processing Center where all their inprocessing is accomplished prior to assignment to their ultimate unit. The medical portion of this inprocessing consists of verifying that the health record is present, or if missing, the initiation of a request for such from the service member's former organization and busing of the service member to a facility entitled "One Station Training" (the same facility that medically inprocesses recruits) where required immunizations are administered and a determination made as to the currency of the physical in the record. The records are then returned to the Central Processing Center where they become the responsibility of a medical records clerk. Upon being informed of the unit of assignment of each service member, the medical records clerk embosses a plastic Patient Recording Card (Appendix G) which is inserted into the health record and affixes a health record identifcation card to the outside of the health record for the purpose of prominently identifying the repository of the record (Appendix H). At the end of each day, the clerk segregates the health records into categories determined by the servicing Troop Medical Clinic in preparation for distribution by the courier from the Clinical Support Division of the hospital. Health records are then filed by organization and alphabetically within each

organization. Service members are given their Patient Recording Card during their first visit to the clinic.

Due to the proximity to the Central Personnel Center and a desire to provide improved service to enlisted personnel reporting for courses, the Enlisted Personnel Section, discussed above, now forwards the health records that they have collected to the medical records clerk at the Central Processing Center for distribution to the Troop Medical Clinics.

When a service member reports to a Troop Medical Clinic for sick call, he signs in at the reception desk, his record is pulled from the storage shelves, he is treated, and his record is returned to the reception desk and re-filed on the storage shelves. Patients with appointments in specialty clinics at the hospital or in clinics situated elsewhere on Post report to the Troop Medical Clinic reception desk, complete a 3 by 5 inch sign-out card by entering their name, current date, military organization and the initial destination of the record (Appendix I). This card is then placed in a pocket of a charge-out folder which is inserted on the shelf where the health record was withdrawn. These folders are made of vinyl and feature a special pocket for insertion of laboratory reports, etc., and a tab which protrudes considerably beyond the other records on the shelf (Appendix J). The folders are color coded to identify the day on which the records are charged out. One additional color, green, was being used to indicate those

records which were overdue. That is, if red were being used on Monday, it was replaced by a green folder on Friday. A list of delinquent records was then compiled and forwarded to the Patient Administration Division of the hospital. Records on these lists were then searched for, either in the files of the Central Outpatient record room or in various specialty clinics. Occasionally, Troop Medical Clinic personnel made appointments with some of the clinics in the hospital for some of the service members for which they were responsible. Under these circumstances, the records were pulled from the shelves, accounted for as described above, and forwarded to the clinics on the afternoon prior to the day of the scheduled appointment.

Several times during the day, clinic rounds were made by someone from the Central Outpatient Records Section for the purpose of retrieving records, laboraory results, and other therapeutic reports and returning them to the Central Outpatient records room. Here, they were sorted for return to the respective Troop Medical Clinics. There was a notable exception to this system. Most specialty clinics located outside of the hospital, such as Community Mental Health, Social Hygiene and the Community Health Nurse, due to lack of an organized retrieval system, either gave records back to the patient to be hand-carried to their Troop Medical Clinic, or had one of their clinic personnel hand-carry the records to the Central Outpatient Records Section when they found it convenient.

Occasionally, health records were signed out of the Troop Medical Clinics by other than the service members to whom they belong. Already noted is the situation where Troop Medical Clinic personnel forwarded records to specialty clinics for appointments. Another situation arose when recruits were identified for overseas assignment upon termination of their training. A drill sergeant who was to accompany the trainees to a location where they would undergo preparation for overseas replacement presented a list of names, which also acted as a receipt, to the Troop Medical Clinic and carried the health records to the proper location. Upon completion of processing, the records were to be returned to the Troop Medical Clinics. Clerical personnel from units scheduled to undergo hearing conservation testing followed the same procedure. Plans, Operations and Training Division personnel from the Medical Department Activity also signed out groups of records, using a roster-type receipt, from the various Troop Medical Clinics. They were required to do such in order to fulfill their responsibilities under the Army's Personnel Reliability Program and in support of Emergency Deployment Readiness Exercises. These will be further discussed in the Analysis section of this paper. These health records were also returned to their respective repositories by the personnel who receipted for them.

In addition to the previously discussed control technique of using sign-out folders when records were removed from the repository,

one other control system was observed. A US Army Field Artillery Center, Fort Sill, letter dated 6 December 1976 required all organizations on Post to send a representative to their servicing Troop Medical Clinic on a monthly basis to inventory their own organization's records on hand. The objects of this inventory were to identify records which did not belong to the organization and were, therefore, excess, and consequently missing from other organizations' files, and to produce a listing of records that were missing from their own organization's files. When the inventory was completed, purged files were left with Troop Medical Clinic personnel who were to utilize the installation alphabetical roster to re-file these health records within the clinic, or forward them to other clinics as appropriate. The list of missing health records was also to be left with the health clinic so that they could check it against purged records from other units conducting inventories. The names remaining on the list were to be sent to the Patient Administration Division at the hospital so that it could search its own files, as well as conduct a survey of the various specialty clinics to determine the location of such records.

Analysis of the System

In accordance with the scope of this study, the analysis of the health record system was limited to those aspects which had a direct bearing on the retrievability and control of records. An

initial review of the numerous activities and diverse procedures which were involved in the management of the records system made it apparent that a detailed investigation of every aspect of the system would not be feasible. Accordingly, investigatory efforts were focused on identifying those areas of deficiency which, if corrected or improved, would have the greatest impact on increasing the number of records available during the treatment encounter or for other military exigencies.

In addition to a literature review, the conduct of the study consisted of procedural analyses, on-site statistical surveys, and a review of pertinent reports on file in various activities throughout Fort Sill.

The number of transactions involving the use of health records per month, i.e., 21,300 outpatient treatments, would indicate that some records are apt to get misplaced. Several indications confirmed this suspicion. An Army Audit Agency inspection in 1976 found that medical histories and the results of other therapeutic tests for outpatients were unfiled due to the nonavailability of health records in the Troop Medical Clinics. In October 1978, a US Army Health Services Command Inspector General team member found that there was a need to improve the management of health records within the Troop Medical Clinic system. In December 1978, the Fort Sill Medical Department Activity was required to make distribution of some 1,100 health records for personnel who had already departed

the Post. On January 15, 1979, 27 of 54 health records that were scheduled for a review under the Nuclear Surety Program were missing out of one Troop Medical Clinic. On March 20, 16 of 23 records scheduled for this same review were missing out of one of the Troop Medical Clinics. On March 21, 1979, with only approximately two-thirds of the units having conducted their inventory of health records, 263 health records were unaccounted for.

Another situation which emphasized the criticality of the health record problem was the inability to assess an individual soldier's health status relative to his ability to meet standards judged necessary to function adequately in combat due to the non-availability of his record. This assessment is normally done as part of an overall assessment of a unit's readiness to perform its assigned mission under the provisions of a program entitled "Emergency Deployment Readiness Exercise (EDRE)". Thirty-nine military organizations at Fort Sill are required to undergo this exercise at least once per year as a test of their ability to deploy and perform their mission on short notice. Upon notification of deployment, the following determinations must be made on each member of an organization: The availability of health records and immunization records, the requirement for immunizations, the requirement for physical examinations and for glasses. The lack of any one of these factors renders a service member ineligible for deployment and consequently serves as a detriment to the

ability of the unit to perform its mission. Appendix K indicates the number of health records not available for selected emergency deployment readiness exercises and serves to emphasize the degree of seriousness with which this problem is viewed by all.

In order to identify the weaknesses in the system, it was necessary to trace the record through the various methods which were used to introduce it into the system. While the Hospital Commander is responsible for the accountability and maintenance of medical records,[1] on this Post, the Adjutant General is responsible for obtaining health records, determining requirements for physical examinations for student personnel and for basic trainees, and collecting the Public Health Service individual immunization records. Training units in possession of health records for administrative purposes have been slow to relinquish custody to the Troop Medical Clinics, thereby making the records unavailable to medical personnel in the event of an emergency. Access to this private information has, on occasion, been abused. To preclude these problems, the physical examination requirement determination and the collection of the immunization records and health records could be accomplished by the administrative personnel at the reception centers without involving unit personnel. The health records could then be provided directly to the Troop Medical Clinics, and administrative information required by most units could be forwarded to them under separate cover.

The new Central Processing Center has provided for a marked improvement in the collection of health records of newly assigned permanent party personnel. But, as with any new system, this was not without problems. The procedure for distribution of health records to Troop Medical Clinics supporting the initial unit of assignment resulted in misfiled records when changes in the unit of assignment were made prior to the time the service member reported for duty. Initial units of assignment were changed when the Adjutant General coordinated changes with commanders to fill a more urgent need than those specified in the arrival orders. Once health records had been forwarded to the clinics servicing the unit of assignment specified in the orders, there was no established procedure to ensure that the clinics were notified of the assignment changes. Clinic personnel estimated this filing error rate to be 20%. Procedures have since been changed so that the Adjutant General coordinates all initial units of assignment within one day after arrival and, if the assignment is to be changed, it is accomplished prior to distribution of the records to the appropriate clinics.

While interviewing clinic personnel, it was discovered that on a monthly basis some 400 service members are reassigned between units on Fort Sill. An outdated and unimplemented Fort Sill regulation tasked the unit personnel officer of the losing organization to notify the servicing clinics of these transfers.

Since the publication of the regulation, personnel officer positions in the units have been abolished and the functions have been assumed by Consolidated Personnel Activities. The duties of notifying the clinics were not addressed. Two procedures were studied. The simplest would have been for the Consolidated Personnel Activity to provide special distribution of all intra-Fort Sill transfer orders to the Medical Department Activity, who would then distribute them to the losing clinic. The losing clinic would be [illegible] the records within the clinic or for the [illegible]ing clinic. An alternate system [illegible]on clearance procedures for intra-Fort Sill transfers to require the service member to clear his supporting clinics so that the clinics would re-file the record or transfer it to the gaining clinic. This would have created an additional task upon the service member that the unit would have found difficult to enforce. Special distribution of intra-service transfer orders would require less man hours and would fix the responsibility for re-filing the records with the Medical Department Activity. It was at this time that the Central Processing Center was instituted and given the responsibility for publishing all intra-Fort Sill transfer orders. Such orders are now automatically distributed to the medical records clerk at the Central Processing Center who has the responsibility of advising the Troop Medical Clinics of the necessity for re-filing or

transferring the records. If the record is to be re-filed within the clinic, the unit designation on the record is changed and it is placed on the designated shelf. If a record is to be transferred to another Troop Medical Clinic, the clinic identification card is removed from the front of the record, a new card is made which shows the identification of the gaining clinic, and the record is forwarded through the courier system.

The purpose of any record filing system is to facilitate the prompt and complete retrieval of pertinent information whenever the need arises. The new receipt procedures described above are adequate; however, to determine how the control of records was lost, a review of the charge-out and retrieval systems was conducted.

Control of records for patients seen in the Troop Medical Clinics was not lost. Due to the color coded tapes which some clinics have affixed to their records and to the unit designation that appears on the front of the record, records were rarely misfiled within the clinics. A random survey was conducted in Troop Medical Clinic #5 which resulted in only one record being misfiled.

The release of health records directly to service members to hand carry to specialty clinics, although signed out and indicating the initial location, was a significant contributing factor to the number of records identified as missing during monthly inventories. There was no guarantee that the patient would visit that Clinic, nor was it considered practical in terms of man hours expended to

verify appointments. Since many personnel considered the Troop Medical Clinic's ability to maintain records inadequate, they sought custody of their own records through such ruses, thereby compounding the problem. Several Troop Medical Clinic personnel, specialty clinic physicians and receptionist personnel, some distrustful of the system and others sympathetic to the pleas of service members, returned the record to the service member. Accountability for records was being lost when patients carried their records from the specialty clinic to which they were initially signed out to another clinic, when the records were carried to civilian providers, when they were referred to a physical evaluation board, or when patients were admitted to the hospital. There was no exchange of information as to the whereabouts of the records between these elements and the Troop Medical Clinic responsible for the maintenance of the record.

A review of the literature produced proof that a charge-out system which maintains continuous accountability is feasible. The Mayo Clinic, Rochester, Minnesota, prides itself on always being able to know where a patient's record is located. Their records personnel properly believe that a patient's record is of vital import and take extensive efforts to preclude its loss. Once the record is retrieved, charged out and placed in a system, the record goes through a central locator file. Here the record is identified and a form is filled out with the patient's name,

registration number, and the original destination of the record. Each section can temporarily lend a record to another clinic. To do so, the lending clinic places a charge-out card in its own file, indicating the destination of the record. A copy of the card mentioned above accompanies the record to its secondary location. If the record is to be permanently transferred to another clinic without first being returned to the locator file, then the area originally receiving the record is responsible for telephonically notifying the locator file of the change. When it is determined that a record is missing, receptionists and other personnel start calling the other 37 clinics, one by one, until the record is found. Additionally, extensive searches of office areas, including desks and files, to include behind the drawers, is conducted. The records are usually found within two hours. Since 1907, out of 2,952,000 medical records generated, only 197 have been irrevocably lost--a remarkable rate of three per year![2]

Another control technique, adaptable to the Fort Sill Medical Department Activity, was located in the US Army Health Services Command Ambulatory Care Program, Model #5.[3] A control document, the key to this whole transfer locator system, is shown in Appendix L. When a patient is to be seen in a second clinic on the same day, a locator card, identifying the second clinic, is completed by the clinic where the patient was initially seen and sent to the record repository through the courier system, where it is

filed in the charge-out folder. This creates an audit trail on a record. If the patient wishes to hold the record for more than the established time frame, he fills out a locator card, indicating the desired hold date and returns it to the repository. Since the date would exceed the established return date policy, the charge-out folder is changed to a different color, indicating an overdue record. This system was recommended and was implemented in early April, 1979.

In order to ascertain the effectiveness of the proposed follow-up procedure, samples of several hundred charge-out cards were checked in each of the Troop Medical Clinics to determine if locator cards had been provided for records that were out beyond the allotted time. Not one card was found. When queried, records personnel in the Troop Medical Clinics admitted that they not only had never received cards on records that had been signed out, but were not apprised of the system. Clinical personnel as well as medical records personnel need to be properly educated about this system.

An additional back-up system, requiring clinic receptionist personnel to annotate the disposition column on their clinic patient log whenever a record is carried out of the clinic by a patient, would provide a secondary audit trail. This would tend to exonerate the Medical Department Activity when an individual

in possession of his record attempts to lay the guilt for the missing record on the Medical Department Activity by saying, "My records are at the hospital."

In order to ascertain the effectiveness of the follow-up procedures for records that were signed out beyond the established four-day period, a survey of all charge-out folders was conducted in Troop Medical Clinics #2 and #5. The results of this survey are shown in Appendix M. On April 26, 1979, there were 63 records signed out of Troop Medical Clinic #2. Forty-six of these were over four days overdue and 12 of these 46 were over one month overdue. In Troop Medical Clinic #5 on April 30, 1979, it was determined that 47 records were signed out, 23 of which were over four days overdue. Of the 23, ten were over one month overdue, and one was signed out in November, 1978. Lists of records signed out over four days are compiled twice a month and forwarded to the Patient Administration Division so that a search can be made for them in the hospital files and clinics. Troop Medical Clinic personnel claim that this procedure results in little success.

Notwithstanding the fact that no locator cards were made when the record was forwarded to another clinic and that there was no record of patients being given their health records to carry out of the hospital, the information provided on the charge-out folders in the Troop Medical Clinics provided few clues as to where to search for the records. Several records were signed out to the

Family Practice Service, of which there are three; several records were signed out to the Eye Clinic without identifying to which of the two clinics the patient went; several records were signed out to the hospital without identifying which area of the hospital. Additionally, the records search effort has been hampered recently due to the attrition of one-third of the personnel responsible for this function. Troop Medical Clinic personnel should be advised to ensure that sign-out cards which are filled out by the patient adequately identify the initial location of the record.

There also seemed to be some confusion at some of the Troop Medical Clinics as to the proper utilization of the color coded charge-out folders. In Troop Medical Clinic #1, the records signed out by the clinic personnel and forwarded to the specialty clinics through the courier service were signed out using a blue folder on Monday, yellow on Tuesday, red on Wednesday, orange on Thursday, and again, blue on Friday. At the end of the duty day on Monday, the blue folders were replaced by yellow folders; on Tuesday, the yellow was replaced by red, and so on through a four-day sequence. When a charge-out folder was over four days old, it was replaced by a green folder. This folder was also used for all records that were signed out by individual patients. This process created much unnecessary work on the part of the clerical personnel. The other Troop Medical Clinics had each established their own color code and were using it as originally intended. One of the clinics had

established a system for determining at a glance which color folder was to be used on a current charge-out day, but it was a very confusing system.

In the interest of simplicity and uniformity throughout the Medical Department Activity, it is recommended that a graphic device used at Brooke Army Medical Center in San Antonio, Texas, be adopted (Appendix N). This is a device which could be prominently placed in record storage areas showing what color was in use on a given day.

While the ideal system would be a closed system where the patients never carry their records, institution of procedures which would insure such a system would be costly, difficult to manage and difficult to enforce.

During the course of this study, another problem associated with the lack of accountability of the records was uncovered. Through the courier system, the clinics were receiving copious quantities of completed consultation forms, narrative summaries, laboratory studies, etc. Many of these forms were unfilable because the records were not available nor were charge-out folders available. This was attributed to the fact that several personnel never turned in their records if they inprocessed prior to the establishment of the Central Processing Center. Most of these records eventually reached the clinic and necessary filing was accomplished. The majority of these unfilable reports were as a

result of the utilization of the Patient Recording Card by personnel who had undergone an intra-Post transfer without having the designation of their Troop Medical Clinic and their military organization changed on the card. That is, their health records had been moved to the Troop Medical Clinic servicing their new unit, but their Patient Recording Card still reflected that they were assigned to their former unit, and that their records were maintained at the Troop Medical Clinic servicing their former unit. There are only two Patient Recording Card embossers available at Fort Sill. One is in the Patient Administration Division of the hospital; the other is being utilized by the medical records clerk at the Central Processing Center. Since the medical records clerk at the Central Processing Center was already being notified of intra-Post transfers and had an embosser available, a detailed analysis of her work-load was conducted. The average number of personnel inprocessed through the Central Processing Center in the last four months was 600 per month or 28 per day. The control and accountability of that number of health records requires no more than one hour a day. As noted earlier, there are approximately 400 intra-Post transfers per month. If this clerk were to emboss new cards on each transfer, it would require 18 new cards daily, in addition to the 28 currently being embossed. Given adequate information, it requires an average operator 30 seconds to emboss a card. Forty-six cards a day, therefore, would require 23 minutes.

This clerk is responsible for other duties related to the accountability and control of health records which require less than two hours per day. Thus, with the availability of time and necessary information which is found on the reassignment orders, this is the ideal person to emboss new Patient Recording Cards. These cards could be sent to the gaining Troop Medical Clinic, inserted in the patient's health record and given to the patient on the occasion of his first encounter in his new Troop Medical Clinic. It would be advisable for the patient to be required to relinquish his old medical card in order to preclude its accidental usage in the future.

The courier system, the necessary thread that weaves the entire retrieval system together, was staffed by one driver. A copy of his schedule is found in Appendix O. In addition to the transportation of health records and medical records between the hospital and the Troop Medical Clinics, this individual was also tasked with delivering administrative supplies, logistic supplies and pharmaceuticals. While conceptually well-organized, an analysis of this function revealed two problem areas. The first was when the courier was obliged to absent himself due to the compensatory time awarded him after pulling Charge-of-Quarters at the Medical Company. There was no replacement for this individual for the entire day. When the courier was on annual leave, a replacement was generally sought from the Nursing Department of the hospital. In the past, this has

proven to be an unreliable source of manpower, either due to the lack of motivation on the part of the replacement, or lack of adequate training. The Clinical Support Division of the hospital should identify a suitable alternate and adequately train him in order that this critical function may be adequately performed.
A second problem was that, on occasion, the courier did not follow the established route. For example, if, after having already been to Troop Medical Clinic #3, he proceeded to Troop Medical Clinic #4 and picked up records that were to be transferred to Troop Medical Clinic #3, he did not wait until the next scheduled visit to Clinic #3. He back-tracked and delivered the records immediately. Considering that several other specialty clinics outside of the main hospital were either being required to personally return their records to the servicing Troop Medical Clinic or to the Central Outpatient Records Section, this back-tracking is considered an inefficient utilization of the courier's time. It would be preferable to not allow him to divert from the established circuit and to utilize the time gained to service other elements such as Community Mental Health Activity, Community Health Nurse Officer, Social Hygiene Clinic and the Physical Examination Section.

In order to preclude access to the health records by unauthorized personnel, such as training NCO's who collect the records in blocks for the purpose of accompanying trainees to the overseas replacement processing center, and company clerks who collect their

records in blocks for the purpose of delivering them to the Hearing Conservation Clinic when their units are scheduled for testing, and to ensure that the records are not stored in the unit where unauthorized personnel may have access to them, a mini-closed record control system can be established. This would require only that the units provide a list of the necessary records to the Troop Medical Clinics two days prior to the scheduled testing. This would allow adequate time for the Clinic medical records personnel to pull the records and send them by courier to the designated clinics.

As mentioned earlier, the Plans, Operations and Training Division of the hospital is required to have access to the records for the purposes of assisting in the conduct of Emergency Deployment Readiness Exercises and for the purpose of screening the records under the Army's Personnel Reliability Program. For the purposes of the exercise, the Plans, Operations and Training personnel sign for the records, transport them to the exercise site, process them, and return them to the clinic, usually within the same day. Thus, they never leave the control of the Medical Department Activity, and are available for filing of laboratory reports, etc., and for patient treatment.

The Personnel Reliability Program is an Army program designed to assist commanders of units whose missions could require them to handle nuclear weapons. Each of these units is required to undergo

a nuclear surety inspection on an annual basis. Two weeks prior to the inspection, Fort Sill requires that a technical assistance visit be conducted by the Medical Department Activity. The records are signed for in bulk by the Plans, Operations and Training personnel, transported to their office, and processed in preparation for the inspection. While these records are often held as long as two or three weeks, service members have access to them for the purpose of receiving medical care, with the proviso that they hand carry them back to the Plans, Operations and Training Divsion. In order to reduce the amount of time that the Plans, Operations and Training personnel spend traveling to and from Troop Medical Clinics in an effort to collect and deliver records, it is recommended that they, too, request the records in writing two days prior to the day required and return them to the Troop Medical Clinic through the courier system. Also, compliance with the retrieval system would necessitate that the records being utilized for patient treatment be returned to the Plans, Operations and Training Division through the retrieval system. Affixing a health record identification card, as shown in Appendix H, to the front of the health record, identifying the Plans, Operations and Training Division as the current temporary custodian and obliterating the cards identifying the Troop Medical Clinic from whence the record came would ensure that the record would be returned to Plans, Operations and Training Division.

Because of the concern on the part of the Fort Sill officials about the unacceptable rate of medical records that were missing during Emergency Deployment Readiness Exercises, a command policy letter requiring monthly unit inventories of the health records in the Troop Medical Clinics was promulgated on December 6, 1976. Since this inventory was considered the primary control or feedback mechanism to both the Medical Department Activity and the unit commanders, it was subjected to close scrutiny. Due to the comprehensive nature of the problem, that is, the fact that it involves virtually every organization at Fort Sill, assistance was provided by the Management Analysis Branch of the Directorate of Resource Management of the Fort Sill Headquarters. During a survey of the Troop Medical Clinics, it became acutely obvious that the guiding directive did not clearly spell out how the inventories would be conducted. Units authorized organic medics generally used them to perform the inventory. Other units used whatever manpower was available at the time. The inventories were conducted with a minimum of verbal instructions so that personnel conducting the inventory were not sure why they were doing it or what they were supposed to accomplish.

Some units used the battery personnel qualification rosters to conduct the inventory. Health records were filed within the clinics alphabetically by battalion. Inventory personnel were supposed to pull out all excess files, check sign-out sheets, and

make a list of all missing records. It is easy to see that the use of four or five different rosters covering one file requires considerable skipping around if all possibilities for file location are checked. Oversights were bound to result.

Some of the units used battalion alphabetical rosters. The use of these rosters, while avoiding the problems inherent with the use of battery personnel qualification rosters, proved to be inadequate because of the time frame in which they were published. The battalion alphabetical rosters were published at mid-month, whereas unit inventories were generally conducted during the first two weeks of each month. It is obvious, even to the casual observer, that the use of outdated standards will result in inaccurate and useless information. Timing the inventories in conjunction with receipt of the battalion alphabetical rosters would have been the logical solution. Other considerations outside the realm of this study have brought about the realization of a solution to this problem. In April, 1979, Fort Sill began publishing battalion alphabetical rosters on microfiche at a minimum of once a week. Simultaneously, action was taken by the Medical Department Activity to place microfiche readers in each of the Troop Medical Clinics.

When the inventories were completed, purged files were left at the clinic to be screened by clinic personnel against the installation alphabetical roster for refiling within the clinic

or forwarding to other clinics as appropriate. This procedure was impractical because the provisions of the Privacy Act limit the distribution of the installation alphabetical roster. Telephonic queries to the Post Locator were limited to three names per caller. This proved to be impractical due to the large number of purged records. Currently, installation alphabetical rosters are published two to three times weekly; therefore, current information is available at the Central Processing Center on microfiche.
On an experimental basis, it was decided to forward purged records to the medical records clerk at the Central Processing Center to determine if this workload could be assumed by the clerk. Fifty records were screened and rerouted to the proper Troop Medical Clinics within 15 minutes. In April, the number of purged records dwindled to approximately 40. Therefore, the workload was not excessive. This improvement was attributed to the implementation of improved inprocessing procedures and techniques for the transfer of records on intra-Post transfers.

Inventories also yielded lists of missing records which were not left at the clinics but returned to the battalions by the inventory personnel. Battalion follow-up varied considerably. Admittedly, follow-up was difficult. A shake-down inspection of the barracks would not produce those health records that were maintained in individual automobiles or in their family quarters. The only consistent positive results were produced during the

Emergency Deployment Readiness Exercises. Missing records miraculously appeared when personnel were faced with the very real possibility of receiving an entire series of immunizations and undergoing a complete physical examination at 2:30 in the morning.

It was also conceivable that, due to other problems already discussed, the records could be misfiled within the system. Prior to confronting service members with an accusaion that they have misappropriated their records, it would seem preferable that a list of missing records be left with the Troop Medical Clinics so that the clinic personnel could search their own files and cross off the names of those records that were located. The remaining names could be redistributed to all other repositories of records so that their files could be searched. The names of those service members whose records cannot be found should be forwarded to unit commanders for follow-up action. For records that cannot be located, a temporary record should be initated and the individual scheduled by the unit for a loss-of-records physical.

One major complicating factor to conducting the inventories is that all health records of female personnel other than basic trainees were maintained at the hospital. The names of these personnel often appear on lists of missing records during Troop Medical Clinic inventories. It would be impractical for these inventory personnel, who often have limited transportation, to be required to go from the Troop Medical Clinics to the hospital to

complete their inventory. Consideration should be given to the possibility of treating female personnel in the Troop Medical Clinics and filing their records with those of the other military members of their organization.

In addition to the confusion caused by not having the female personnel's records in the Troop Medical Clinic, there was some consternation among personnel inventorying due to the fact that a standard had not been established to define a missing record. On some inventories, records that were charged out for one day were considered missing just as much as those that had been charged out for six months. On other inventories, if the record had been charged out less than four days, the established standard was that it was considered as accounted for. It is recommended that a standing operating procedure be devised to establish uniformity among the inventories, and that this procedure should establish that a record that has been properly charged out for less than four days or has been accounted for by the use of an outpatient record locator card, as shown in Appendix L, be considered as present. All health records not physically on the shelves or for which there are charge-out folders which exceed the four-day limit should be included on the lists of missing records.

Although the problem has somewhat improved, there are still several organizations that do not conduct monthly inventories. The number has dwindled from 73 in August, 1978, to 35 in March,

1979. This is still approximately one-third of the units that are required to conduct inventories. The Fort Sill Management Analyst recommended that the letter which required the performance of monthly health record inventories be rescinded and be replaced by a regulation, a more detailed and permanent directive. A regulation was written and staffed and, at the time of this writing, is in the process of being printed. This regulation is more specific about the requirement for units to conduct inventories. It is recommended that the Medical Department Activity apprise the Fort Sill Chief of Staff, on a monthly basis, of which units are not conducting inventories. Responsibility for ensuring conformance with this regulation rests with this office.

The Central Outpatient Records Section, while not the custodian of a large number of health records, is an important element in the accountability and control system. This section has been charged with the responsibility of distributing to the specialty clinics within the hospital the records from the Troop Medical Clinics for patients with appointments, retrieving records from the specialty clinics, and sorting records and all associated medical documents into categories for return to their respective repositories. Retrieval includes searching for records that appear on lists of missing records as a result of inventories conducted by the units. In December, 1978, there existed a back-log of 51 days in the processing of therapeutic reports in this section. A review

of the shelving, floor plan, working facilities and other environmental factors, such as lighting, and an analysis of the work-flow were conducted without discovering any inefficiencies. Staffing was then examined to determine its adequacy. The results of a manpower survey conducted in 1976 indicated that, based on an average work-load of 20,000 outpatient visits per month, this section required 13 employees. A time-motion study conducted during this same time frame indicated a requirement for fifteen employees. The current Table of Allowances provides for eight civilian employees. The backlog situation was resolved in approximately three weeks by borrowing labor from the other branches of the Patient Administration Division during the afternoons, and by assigning military personnel overtime duty during the evening hours. It was at approximately this time that the increase in staffing described in the first portion of this chapter developed.

If the Central Outpatient Records Section fails to function adequately, the entire health records control system becomes dysfunctional. The number of personnel working in this section ~~must~~ SHOULD be increased. One authorization, currently unfilled and identified in an earlier portion of this paper as unnecessary, is that of the medical records clerk in Troop Medical Clinic #5. This position could be transferred to the Central Outpatient Records Section. In light of the fact that professional staffing is projected to change during the summer of 1979, the Comptroller Division

should be tasked with identifying ancillary personnel spaces that will no longer be required for the purpose of transferring those spaces to the Central Outpatient Records Section. The Hospital Red Cross Volunteer Organization will be adding to its roles this summer and constitutes a potential source of labor for this section.

Good

Footnotes

[1]U.S. Department of the Army, Patient Administration, Army Regulation 40-400 (Washington, D.C.: Government Printing Office, 1978), paragraph 1-4.

[2]Alton J. Sheek, "Control Procedures of Outpatient Records at Fitzsimons Army Medical Center, Denver, Colorado," (Unpublished Masters Thesis, Baylor University, 1974), pp. 53-54.

[3]Outpatient Medical Records Improvement Actions, Ambulatory Patient Care Program, U.S. Army Health Services Command APC Model No. 5 (Fort Sam Houston, Texas: U.S. Army Health Services Command, 1977), p. 6.

CHAPTER III

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The system for accountability and control of health records within the Medical Department Activity at Fort Sill, Oklahoma, has been discussed and analyzed. The following conclusions have been drawn:

1. Health records of personnel reporting to Fort Sill for schooling were forwarded to their military organization in contravention of current regulations and unduly detained.

2. Specialty clinic personnel did not ensure that the records of patients seen in their clinic were subsequently gathered together for return to the Central Outpatient Records Section each day. Patients were occasionally allowed to retain their records.

3. Specialty clinic personnel were not notifying the records repositories when a Health Record was subsequently forwarded to another clinic.

4. Notification was not provided when physicians desired to retain the records beyond the established time limit.

5. Many of the charge-out folders did not adequately identify the initial destination of the health record.

6. There was widespread confusion about the proper utilization of the color coded charge-out folders for the purpose of determining delinquency.

7. Follow-up action on health records remaining out of the files in excess of four days was not consistent. This was due primarily to inadequate staffing in the Central Outpatient Records Section.

8. Patient Recording Cards were not being updated to reflect the new Troop Medical Clinic and military organization of service members who underwent intra-Post transfers.

9. There was no alternate trained to carry on the functions of the courier in his absence.

10. Due to not following the established route, that is, back-tracking, there was insufficient time for the courier to pick up records from clinics that should be added to the route.

11. Personnel, other than the service member to whom the record pertains, had been allowed temporary custody of health records.

12. Lists of shortages of records, generated by unit inventory, were returned to the units rather than being used by the Medical Department Activity to search for records.

13. The absence of female personnel's health records in the Troop Medical Clinics was a major contributing factor in inflating the number of records missing during the unit inventories.

14. There were insufficient instructions for conducting a unit inventory of health records.

15. There was no vehicle to inform the Chief of Staff at Fort Sill as to which units were not conducting unit inventories.

16. Staffing of the Central Outpatient Records Section of the hospital was completely inadequate.

Recommendations

Based upon the conclusions in the study, the following recommendations are submitted for consideration:

1. That health records of incoming student personnel be transmitted directly from the Fort Sill Adjutant General to the servicing Troop Medical Clinic.

2. That specialty clinic receptionists make a concerted effort to retrieve all records by the end of the clinic day and make them available for pick up by Central Outpatient Records Section personnel.

3. That notification be provided to personnel in the records repositories when it becomes necessary for health records to remain out of the files in excess of four days, or when records are transferred from one specialty clinic to another.

4. That records repository personnel ensure that the initial destination of a health record is adequately identified prior to releasing it.

5. That the operational color indicator shown in Appendix N be adopted throughout the Medical Department Activity.

6. That immediate follow-up action be taken on Health Records remaining out of the files in excess of four days.

7. That the medical records clerk at the Central Processing Center be instructed to prepare new Patient Recording Cards on all intra-Post transfers.

8. That a suitable alternate be identified and trained to function in the absence of the courier.

9. That clinics that so require be added to the courier's route, and that he be instructed not to deviate from the route.

10. That, instead of allowing unauthorized personnel to carry health records, units be instructed to submit requests to the Troop Medical Clinics two days prior to the scheduled appointments in order to allow enough time for the records to be transported to the designated clinics via the established courier system.

11. That lists of shortages of medical records generated during unit inventories be left with the Medical Department Activity in order that they may be reconciled with one another and the purged records, and that the resultant smaller lists then be sent to unit commanders for the purpose of searching for the records.

12. That consideration be given to filing female service member's health records in the Troop Medical Clinic.

13. That a standard operating procedure for the purpose of inventorying health records be published and made available to inventory personnel.

14. That the Fort Sill Chief of Staff's office be utilized to generate increased interest in the accomplishment of the unit inventories of health records.

15. That staffing allowances for the Central Outpatient Records Section be increased by transferring authorizations from other sections of the hospital, by transferring the medical records specialist authorization from Troop Medical Clinic #5 and through increased utilization of Red Cross volunteers.

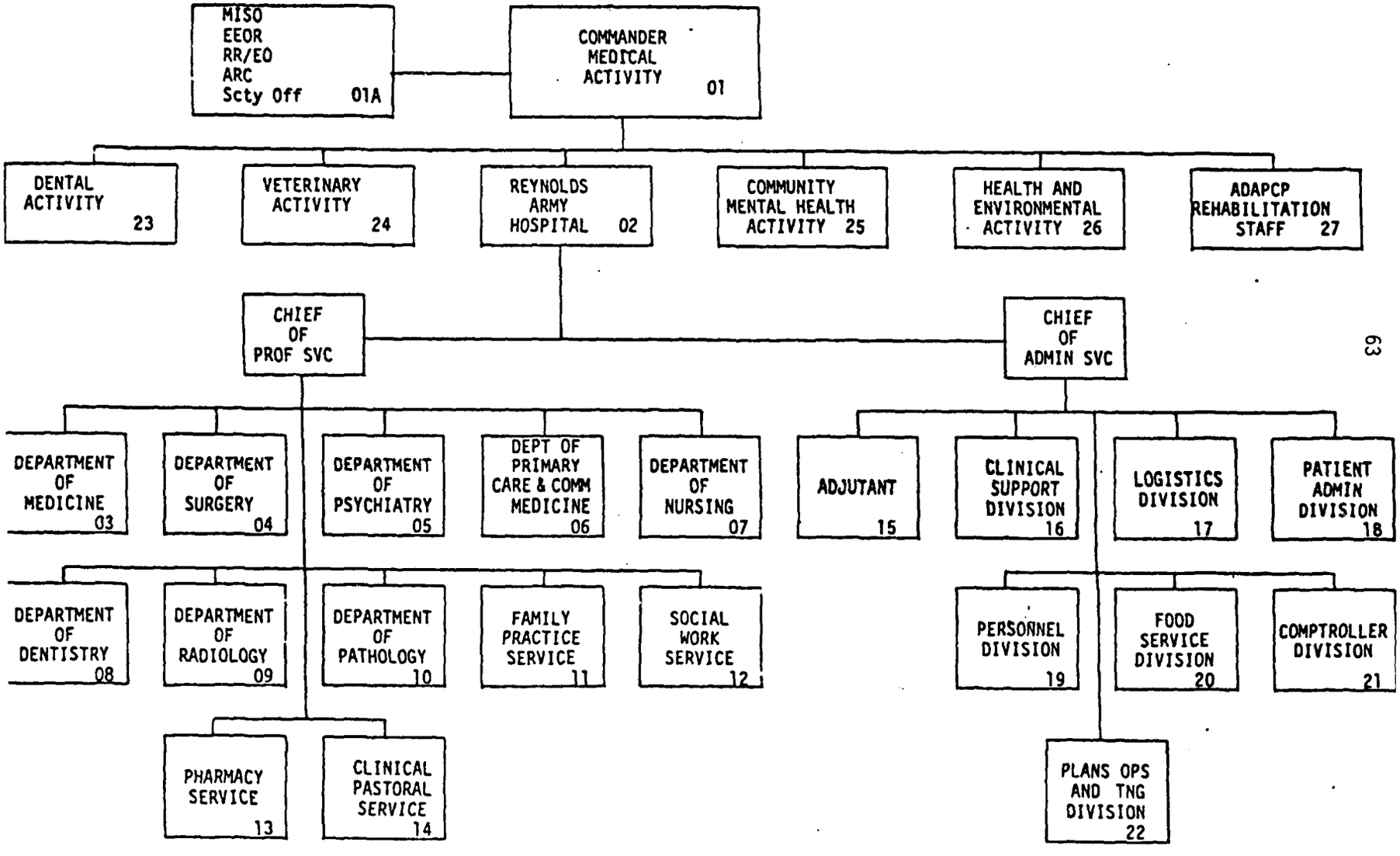
APPENDIX A

U.S. ARMY MEDICAL DEPARTMENT ACTIVITY

FORT SILL, OKLAHOMA

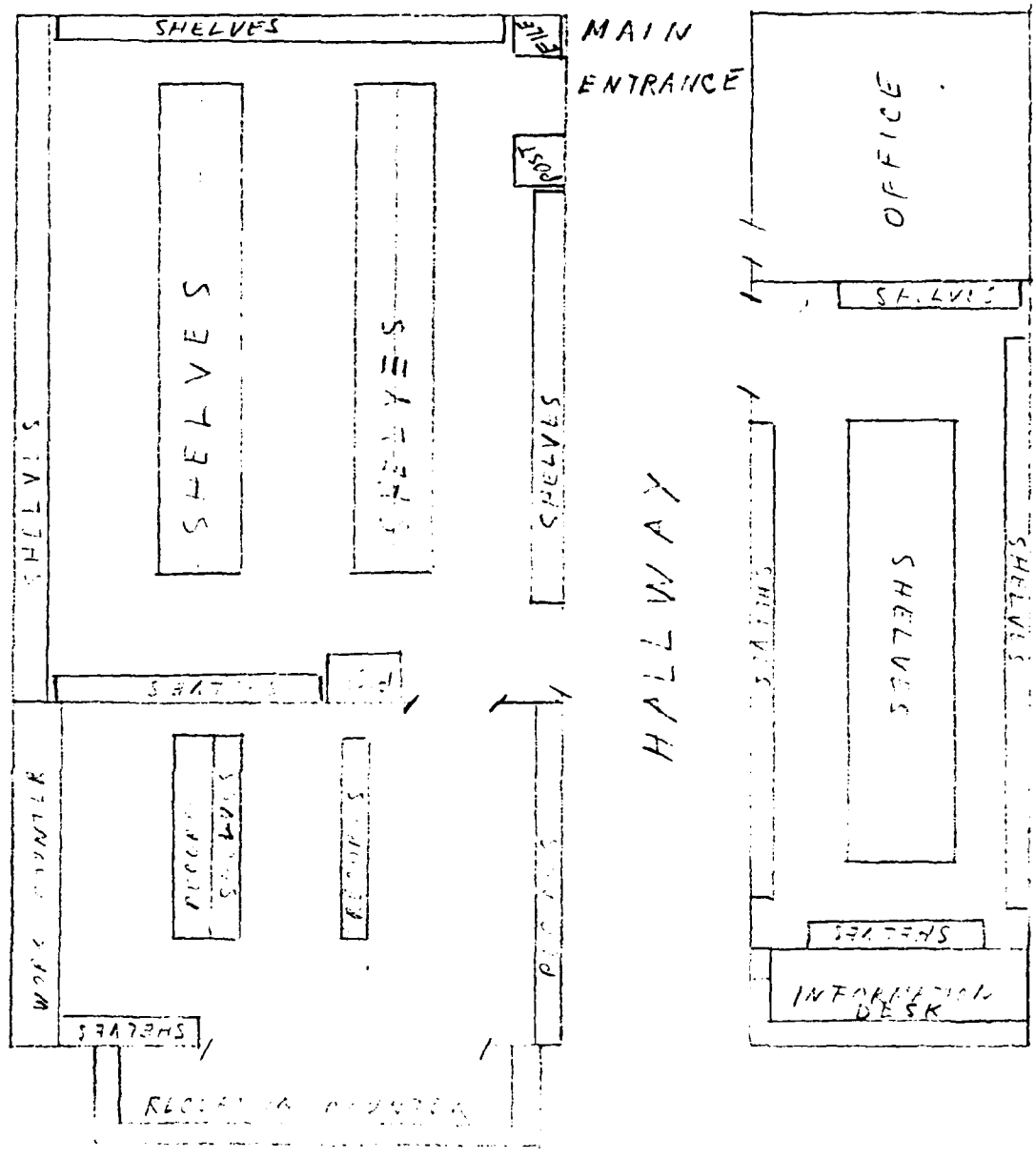
TDA HSW2NVAA
CCNUM HS017[illegible]
EDATE 780902

US ARMY MEDICAL DEPARTMENT ACTIVITY, FORT SILL, OK

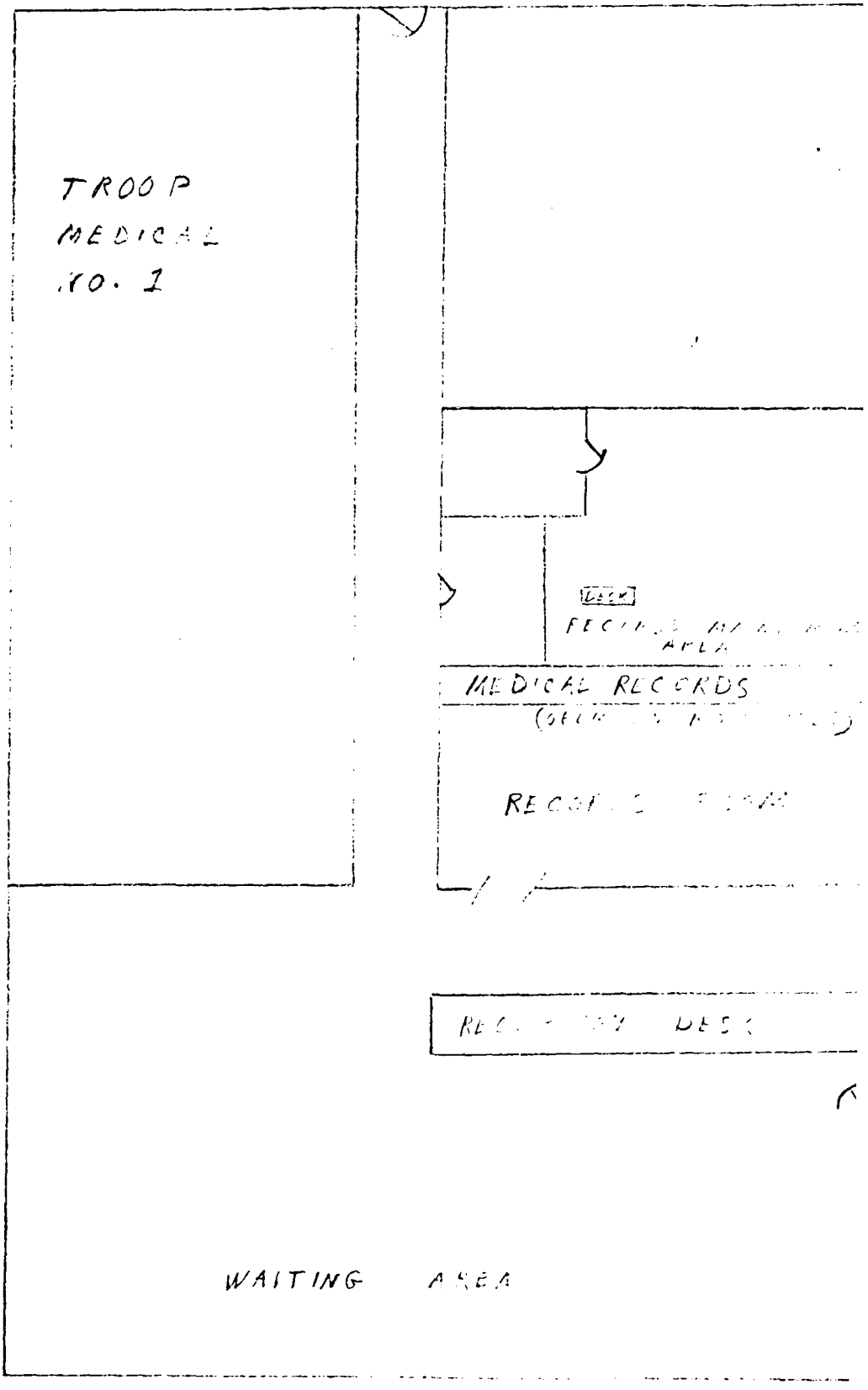


APPENDIX B

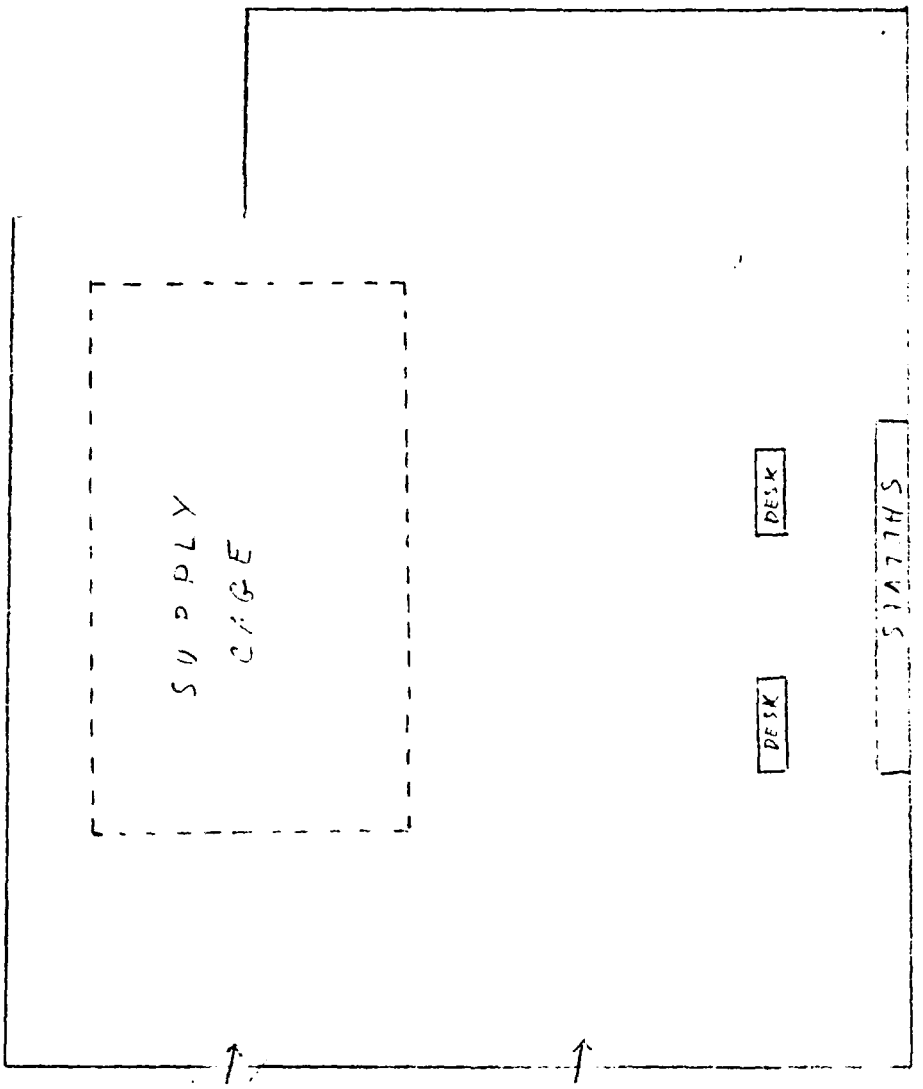
LAYOUT OF THE CENTRAL OUTPATIENT RECORDS ROOMS AND RECORD REPOSITORIES IN THE TROOP MEDICAL CLINICS



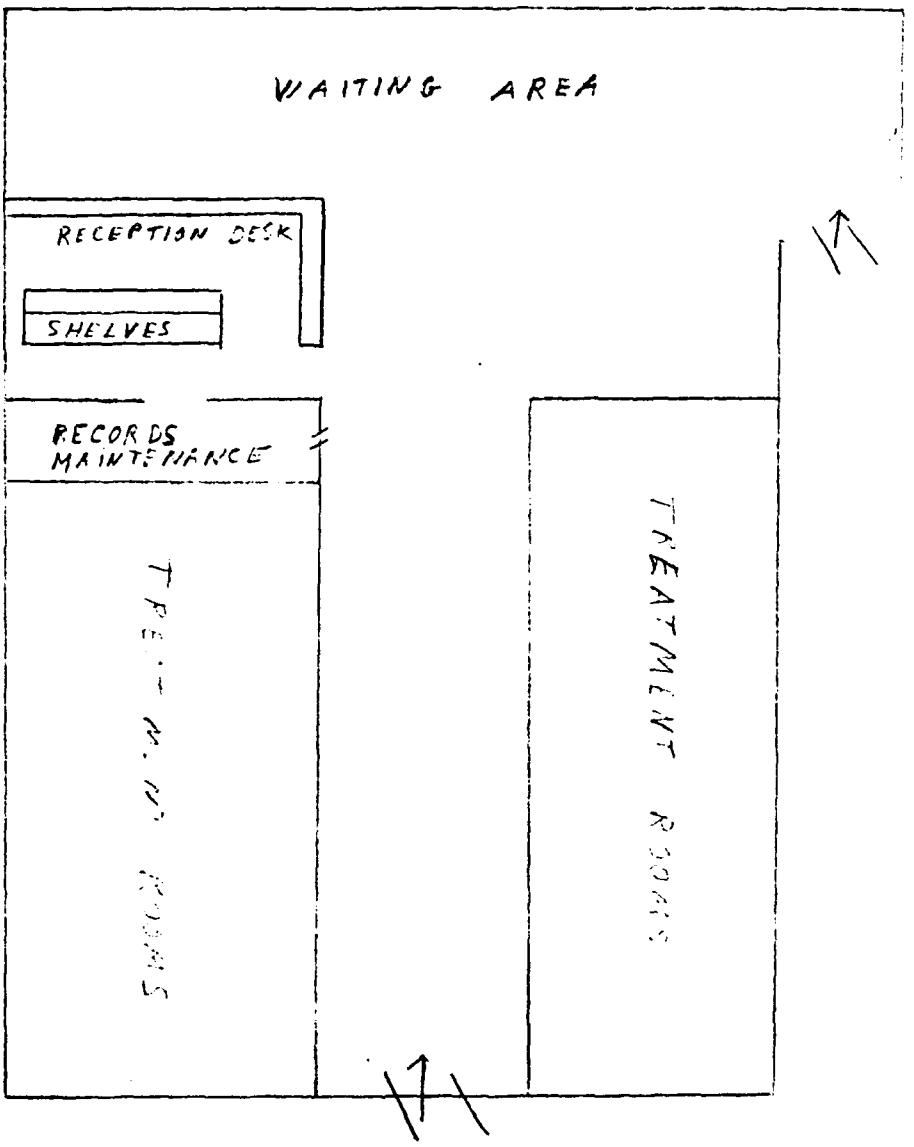
CENTRAL DOCUMENTS
SECURITY SECTION


TROOP
MEDICAL
NO. 1
DESK
MEDICAL RECORDS
WAITING AREA

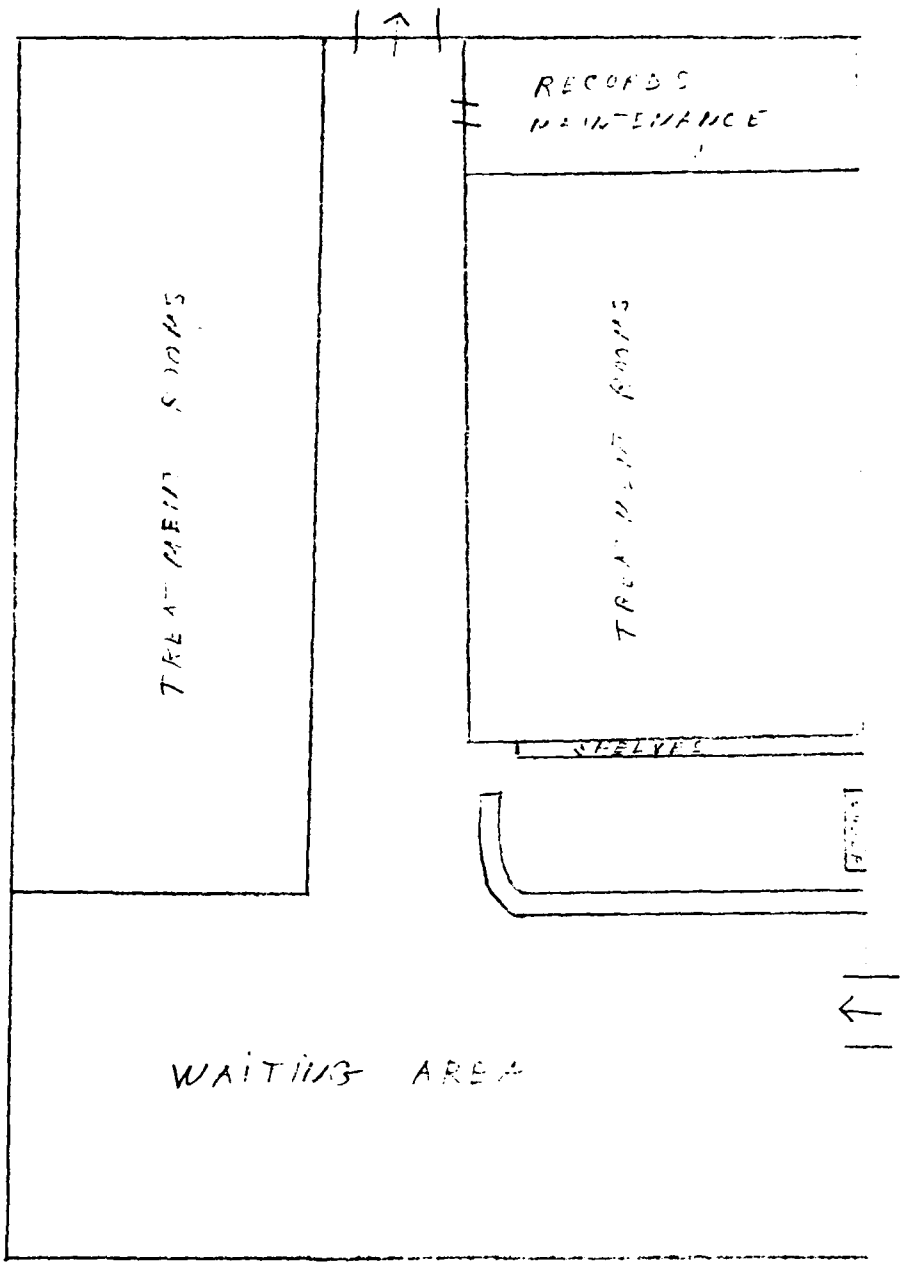
TROOP MEDICAL CLINIC NO. 2



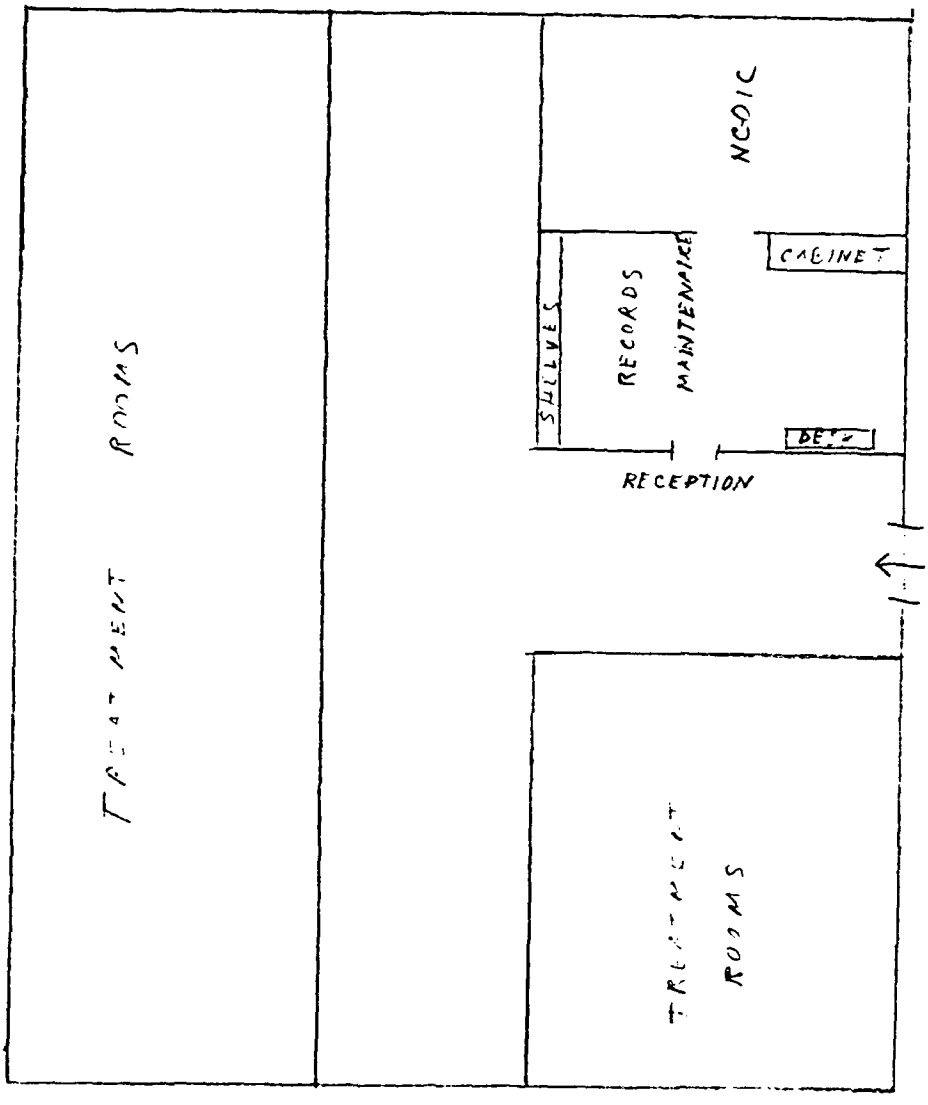
TROOP MEDICAL CLINIC NO. 3



TROOP MEDICAL CLINIC NO. 4



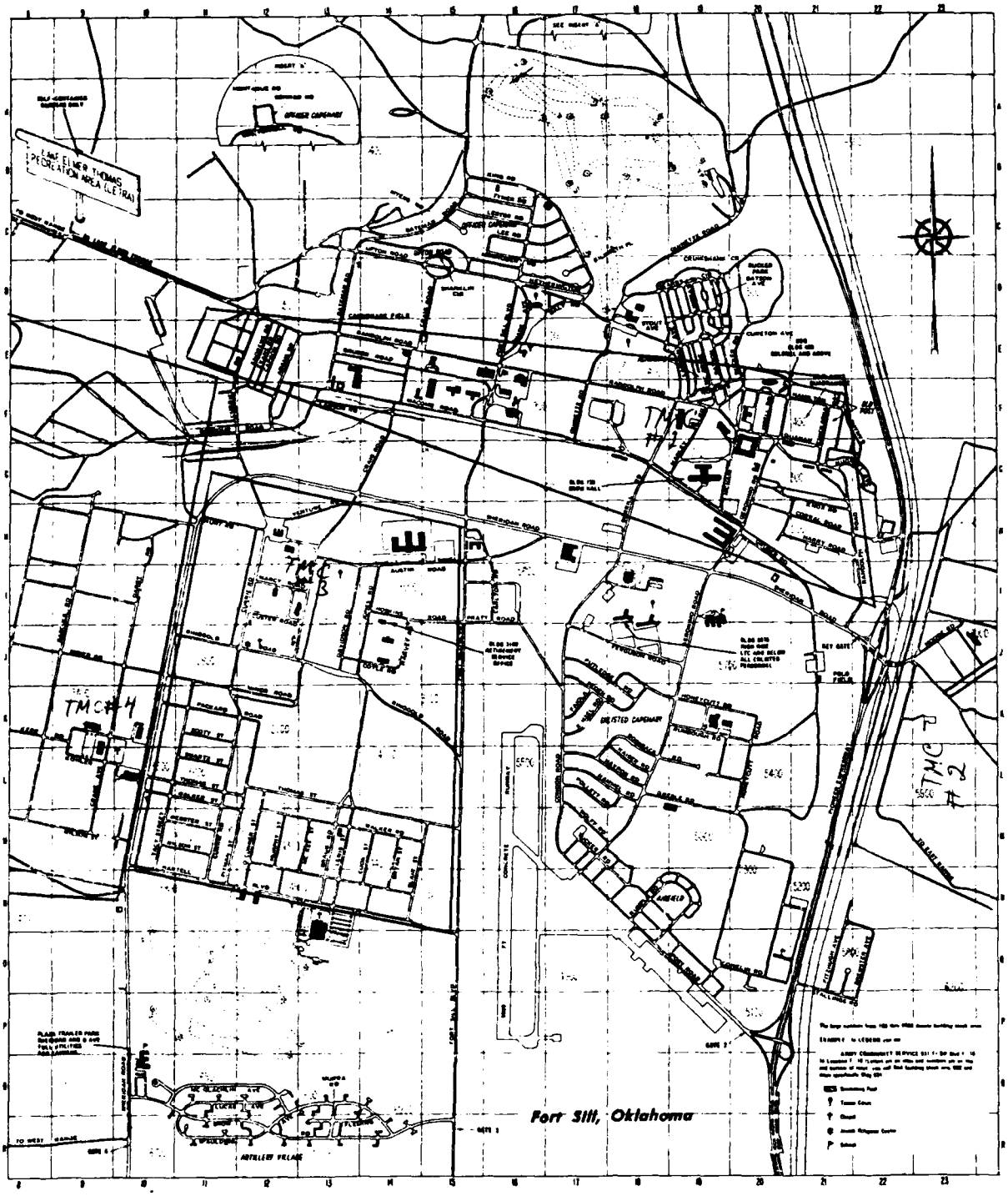
TROOP MEDICAL CLINIC NO. 5



APPENDIX C

LOCATION OF TROOP MEDICAL CLINICS

AT FORT SILL, OKLAHOMA


LAKE ELMER THOMAS
RECREATION AREA (LETRA)
TMC #1
TMC #2
TMC #3
TMC #4
Fort Sill, Oklahoma

APPENDIX D

ACTIVE DUTY OUTPATIENT

STATISTICS FOR 1978

ACTIVE DUTY OUTPATIENT VISITS FOR 1978

	HOSPITAL	TMC #1	TMC #2	TMC #3	TMC #4	TMC #5
Jan	13,430	1,041	781	2,865	2,521	296
Feb	13,111	1,019	1,017	2,869	3,239	268
Mar	14,467	1,075	1,111	1,920	2,972	351
Apr	12,715	1,379	806	1,452	2,764	288
May	14,615	1,242	799	1,699	2,520	326
Jun	15,409	1,300	1,062	1,833	2,499	544
Jul	15,631	1,110	1,214	1,848	2,098	175
Aug	15,078	1,326	1,273	2,319	2,366	285
Sep	14,873	1,243	984	2,501	2,437	220
Oct	15,667	1,430	1,257	2,504	2,769	268
Nov	16,220	1,181	957	2,094	2,171	145
Dec	9,225	651	693	1,455	2,043	289

APPENDIX E

STAFFING OF CENTRAL OUTPATIENT RECORDS SECTION AND THE TROOP MEDICAL CLINICS

DISTRIBUTION OF MEDICAL RECORDS PERSONNEL

	Recognized Requirement	Authorized	Assigned
Central Outpatient Records Section	13	8	9
TMC #1	1	1	1
TMC #2	1	1	1
TMC #3	2	2	1
TMC #4	2	2	1
TMC #5	1	1	0
One Station Training	2	2	1
Central Processing Center	0	0	1

APPENDIX F

MILITARY ORGANIZATIONS SERVICED BY TROOP MEDICAL CLINICS

The Troop Medical Clinics are responsible for furnishing medical treatment, storage health records and the maintenance of health records for the following:

Troop Medical Clinic #1

Officer Student Bn
OSB (Perm Party)
D-6 STB (Perm Party)
1/31st Inf Bn
HHC
BCO
Staff & Fac
HQ Btry
A Btry
B Btry
C Btry
D Btry
Co D 57th Signal Bn
77th Army Band
546 MP Co
83d Chemical Det
100 S&S Bn
214 Arty Bn
Co B 40th Armor
HHB, III Corp Arty
USA Arty Board
2/2 Fld Arty Bn
197th MP
133d Msl Gp
HHB
Svc Btry
A Btry
B Btry
C Btry
D Btry
5/CID
USAFACFS
HQ Btry
A Btry
Detachment III
FAMSEG
NCOES

Troop Medical Clinic #2

4th Tng Bn
Btry A 4th Tng Bn
Btry B 4th Tng Bn
Btry C 4th Tng Bn
Btry D 4th Tng Bn
Btry E 4th Tng Bn
5th Tng Bn
Btry A 5th Tng Bn
Btry B 5th Tng Bn
Btry C 5th Tng Bn
Btry D 5th Tng Bn
Btry E 5th Tng Bn

Troop Medical Clinic #

HHB Tng Cmd
Btry A
Btry B
Btry C
HHB ATC
30 FINANCE
225 Med Det
92 MI Det
PCF
47th Field Hospital
HHB 75th FA Gp
Readiness Group
Reception Station
Btry A 1st Tng Bn
Btry B 1st Tng Bn
Btry C 1st Tng Bn
Btry D 1st Tng Bn
Btry E 1st Tng Bn
HHB 2d Tng Bn
Btry A 2d Tng Bn
Btry B 2d Tng Bn
Btry C 2d Tng Bn
Btry D 2d Tng Bn
HHB 3d Tng Bn
Btry A 3d Tng Bn
Btry B 3d Tng Bn
Btry C 3d Tng Bn
Btry D 3d Tng Bn
Special Tng Btry
A/6
B/6
E/6
PNCOC
BNCOC

Troop Medical Clinic #4

151st Ord Det
61st Ord Det
225th Hvy Maint Co. (cs)
226th Lem Maint Co. (cs)
471st Trans Co
HHB, 9th Msl Gp
HHB, 212th FA Gp

1st Bn 12th FA
A Btry
B Btry
C Btry
SC Btry
HHB Btry

1st Bn 17th FA
A Btry
B Btry
C Btry
Svc Btry
HHB Btry

1st Bn 13th FA
A Btry
B Btry
C Btry
SC Btry
HHB Btry

C/25
HHB Btry
C Btry

2d Bn 1st FA
A Btry
B Btry
C Btry
D Btry
Svc Btry
HHB Btry

2d Bn 18th FA
A Btry
B Btry
C Btry
SC Btry
HHB Btry

2d Bn 36th FA
A Btry
B Btry
C Btry
SC Btry
HHB Btry

2d Bn 37th FA
A Btry
B Btry
C Btry
SC Btry
HHB Btry

3d Bn 9th FA
A Btry
B Btry
C Btry
SC Btry
HHB Btry

3d Bn 18th FA
A Btry
B Btry
C Btry
SC Btry
HHB Btry

4th Bn 4th FA
A Btry
B Btry
C Btry
SC Btry
HHB Btry

6th Bn 33d FA
A Btry
B Btry
C Btry
SC Btry
HHB Btry

299th Eng Bn
A Co
B Co
C Co
D Co
HHC

2d Bn 34th FA
A Btry
B Btry
C Btry
Svc Btry
HHB Btry

2d Bn 12th FA
A Btry
B Btry
C Btry
Svc Btry
HHB Btry

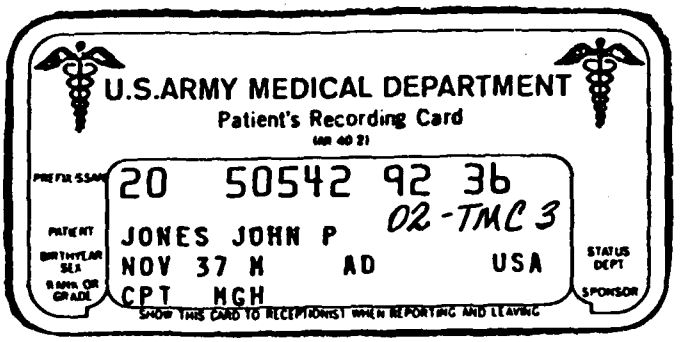
Troop Medical C

HHB 14th Avn Bn
178th Avn Co
273 Avn Co
Recon Helicopter
DPT Avn Div
507th Air Ambula
Weather Det (USA
Aviators (OSB)
Aviators on post

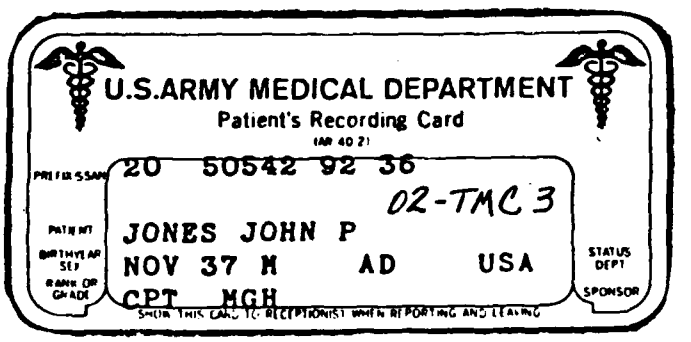
c #5

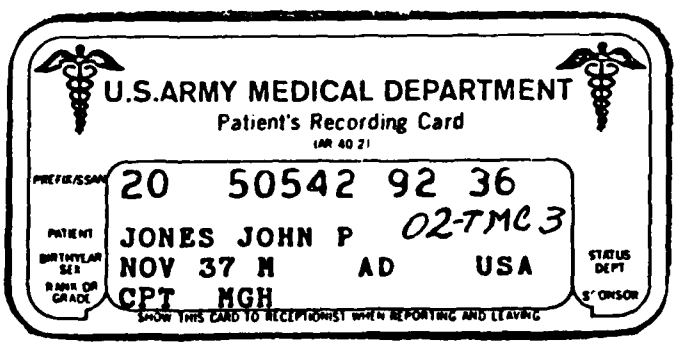
APPENDIX G

PATIENT RECORDING CARD



IDEAL LARGE FONT. SAMPLE RECORD CUSTODIAN CODE.





APPENDIX H

TROOP MEDICAL CLINIC

IDENTIFICATION CARD FOR HEALTH RECORDS

THIS HEALTH RECORD IS THE PROPERTY OF:

TMC
REYNOLDS ARMY HOSPITAL
FT SILL, OKLA 73503

IF FOUND PLEASE RETURN TO REYNOLDS ARMY HOSPITAL OR TO THE NEAREST US POST OFFICE

OFFICIAL MAIL — POSTAGE FREE

APPENDIX I

HEALTH RECORD SIGN-OUT CARD

PATIENTS NAME

SSAN

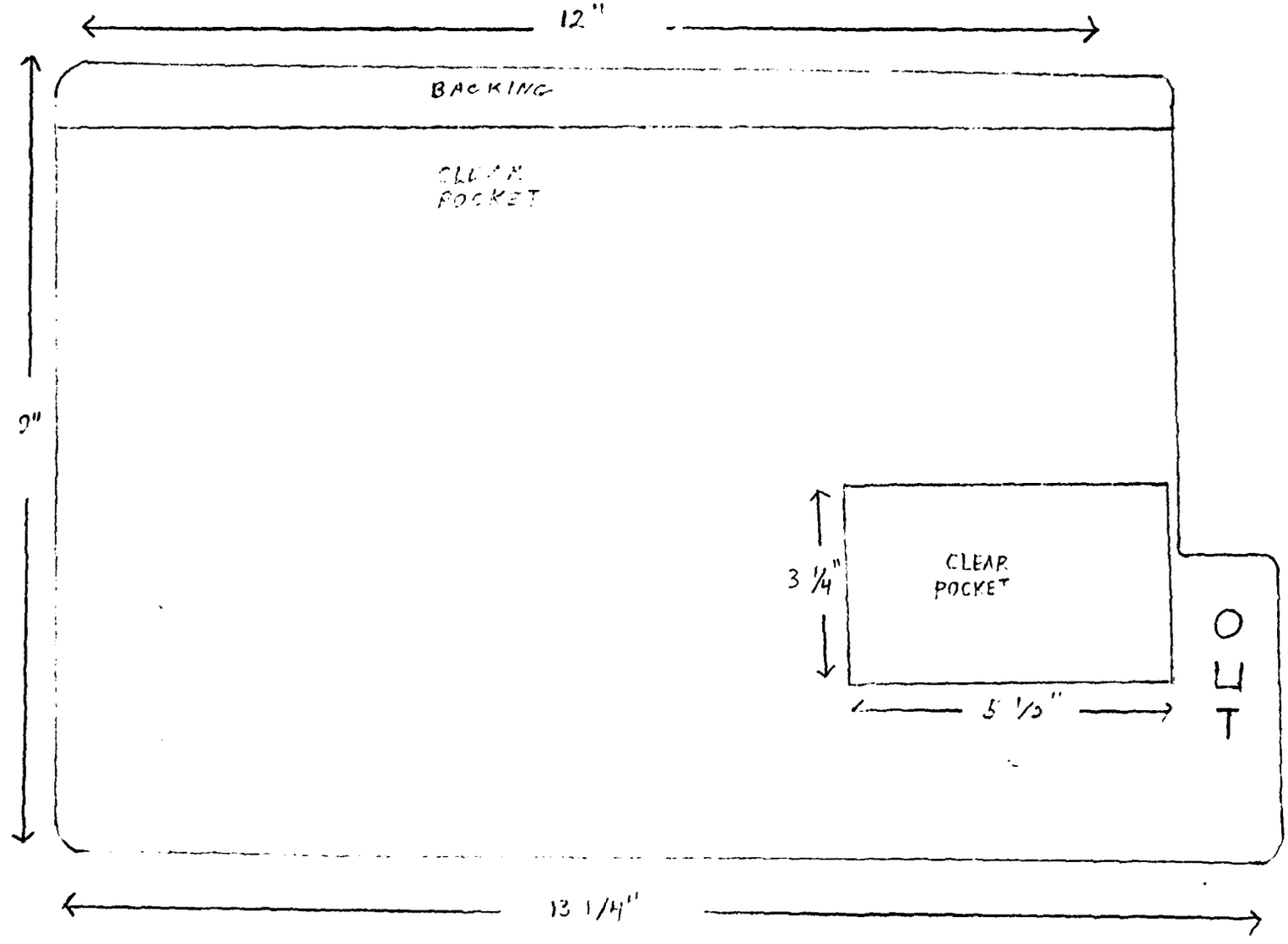
UNIT

DATE SIGNED OUT

DESTINATION

APPENDIX J

CHARGE-OUT FOLDER FOR HEALTH RECORDS


12"
BACKING
CLEAR POCKET
9"
3 1/4"
CLEAR POCKET
5 1/2"
OUT
13 1/4"

APPENDIX K

MISSING HEALTH RECORDS FOR EMERGENCY DEPLOYMENT READINESS EXERCISES

EMERGENCY DEPLOYMENT READINESS EXERCISE -

MISSING HEALTH RECORDS

DATE		UNIT	PERSONNEL PROCESSED	MISSING HEALTH RECORDS
2 Apr		1/12 FA	410	37
3 Apr		1/18 FA	399	50
27 Mar		100 S&S Bn	65	10
26 Jan		273d Trans Co.	116	21
26 Jan		3/18 FA	401	17
5 Jan	Pre-POR	3/18 FA	455	69
26 Jan		4/4 FA	375	70
5 Jan	Pre-POR	4/4 FA	307	51

APPENDIX L

OUTPATIENT RECORD LOCATOR CARD

OPR AND X-RAY CONTROL

Patient's Name (Last-First-Middle Initial)		Grade or Status
SSAN	Date	Clinic

This space for mechanical imprinting:

CLINIC_____

WARD_____

TMC_____

OTHER_____

FSMEDDAC Form 270
Rev 1 Feb 79

L555

APPENDIX M

SURVEY OF CHARGE-OUT FOLDERS

SURVEY OF SIGNED-OUT HEALTH RECORDS AT

TROOP MEDICAL CLINIC NO. 2 ON

APRIL 26, 1979

Date Signed Out As of 26 Apr 79	Destination	Date Signed Out As of 26 Apr 79	Destination
3 Apr	Family Practice	12 Apr	Eye Clinic
9 Apr	Psychiatry	18 Apr	Eye Clinic
13 Apr	Eye Clinic	12 Apr	Family Practice
23 Apr	Family Practice	13 Apr	Eye Clinic
3 Apr	Family Practice	2 Apr	Orthopedic Clinic
20 Apr	Orthopedic Clinic	29 Mar	Eye Clinic
13 Apr	Eye Clinic	26 Apr	Family Practice
28 Mar	Eye Clinic	29 Mar	Podiatry
12 Mar	Urology	24 Apr	PE
6 Apr	MH Clinic	18 Apr	Family Practice
3 Apr	Int Med (EPTS)	26 Apr	Family Practice
18 Apr	Orthopedic Clinic	23 Mar	Family Practice
25 Apr	Prev Med	13 Apr	Family Practice
13 Apr	Urology	23 Apr	Podiatry
25 Apr	Physical Exam	20 Apr	Orthopedic Clinic
25 Apr	PE	23 Mar	PE
29 Mar	Int Med	13 Apr	Bldg. 2605
12 Apr	Family Practice	4 Apr	Eye Clinic
23 Apr	Family Practice	23 Apr	PE
26 Apr	PT	24 Apr	Family Practice
4 Apr	Family Practice	16 Apr	PT
6 Apr	Mental Hygiene	29 Mar	NCOES
12 Apr	ER	10 Apr	PE
24 Apr	PT	15 Apr	Surg Clinic
21 Mar	Family Practice	14 Mar	Family Practice
7 Apr	ER	25 Apr	MH Svc
26 Apr	POR	28 Mar	Family Practice
18 Apr	PE	12 Mar	Hearing Cons.
18 Apr	PE	17 Apr	Family Practice
18 Apr	PE	5 Apr	PE
18 Apr	PE	23 Apr	PE

SURVEY OF SIGNED-OUT HEALTH RECORDS AT

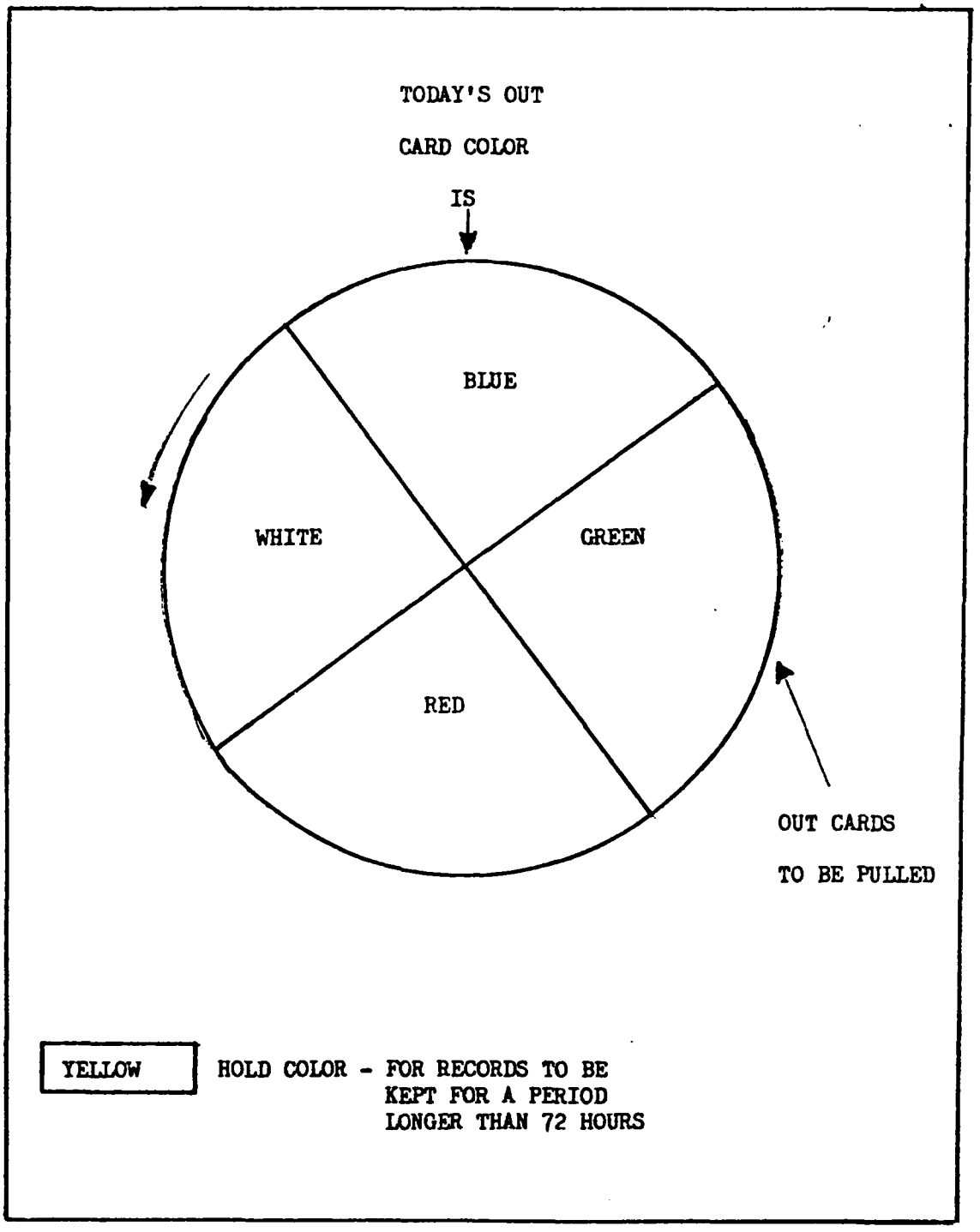
TROOP MEDICAL CLINIC NO. 5 ON

APRIL 30, 1979

Date Signed Out As of 30 Apr 79	Destination	Date Signed Out As of 30 Apr 79	Destination
27 Apr	2777 (CMHA	27 Apr	Hosp
9 Apr	Ortho	23 Apr	F.P.
8 Mar	Ortho	30 Apr	Pod
19 Mar	TMC 3	30 Apr	Surg
6 Apr	RAH	29 Apr	Eye
27 Apr	Audio Cl	27 Apr	Hosp
27 Nov	Diet Cl	23 Apr	F.P.
18 Apr	Ortho/Pod	30 Apr	Pod
26 Apr	RAH	30 Apr	Surg
7 Apr	Optom	29 Apr	Eye
27 Apr	F.P. Bailey	1 Mar	Ortho
13 Apr	Nuc Surety	25 Apr	Opt
30 Apr	Phys Exam	17 Apr	Pod
30 Apr	PE	27 Apr	Hosp
19 Apr	Int Med	18 Apr	Eniwetok
30 Apr	?	24 Apr	Hosp
18 Apr	Med Bds	?	Opt
25 Apr	PE	2 Mar	RAH
23 Apr	Ortho	26 Mar	Imm
30 Apr	Hosp	27 Mar	F.P.
12 Apr	?	19 Apr	Ortho
30 Apr	PE	25 Apr	2777
30 Apr	F.P. Bailey	23 Mar	Zerox
25 Apr	Eye Cl		

APPENDIX N

OPERATIONAL COLOR INDICATOR

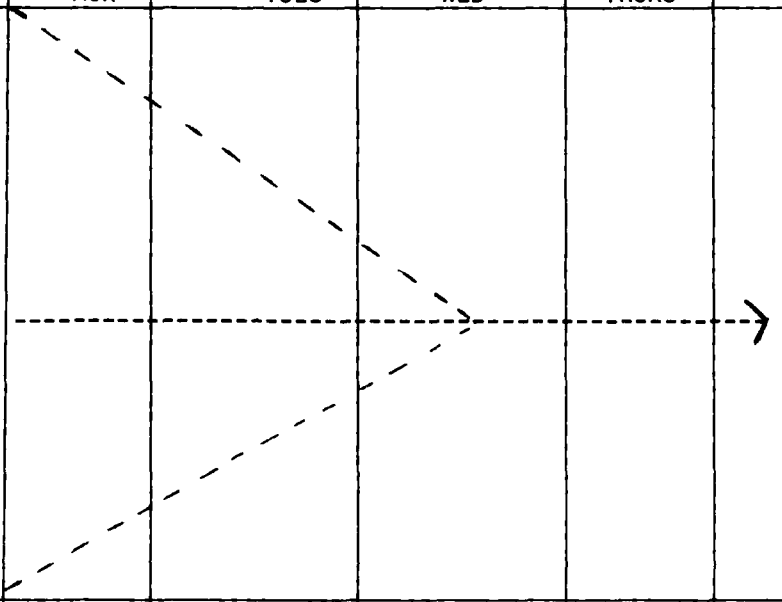

TODAY'S OUT
CARD COLOR
IS
BLUE
WHITE
GREEN
RED
OUT CARDS
TO BE PULLED
YELLOW
HOLD COLOR - FOR RECORDS TO BE KEPT FOR A PERIOD LONGER THAN 72 HOURS

APPENDIX O

COURIER SCHEDULE

CLINICAL SUPPORT DIVISION

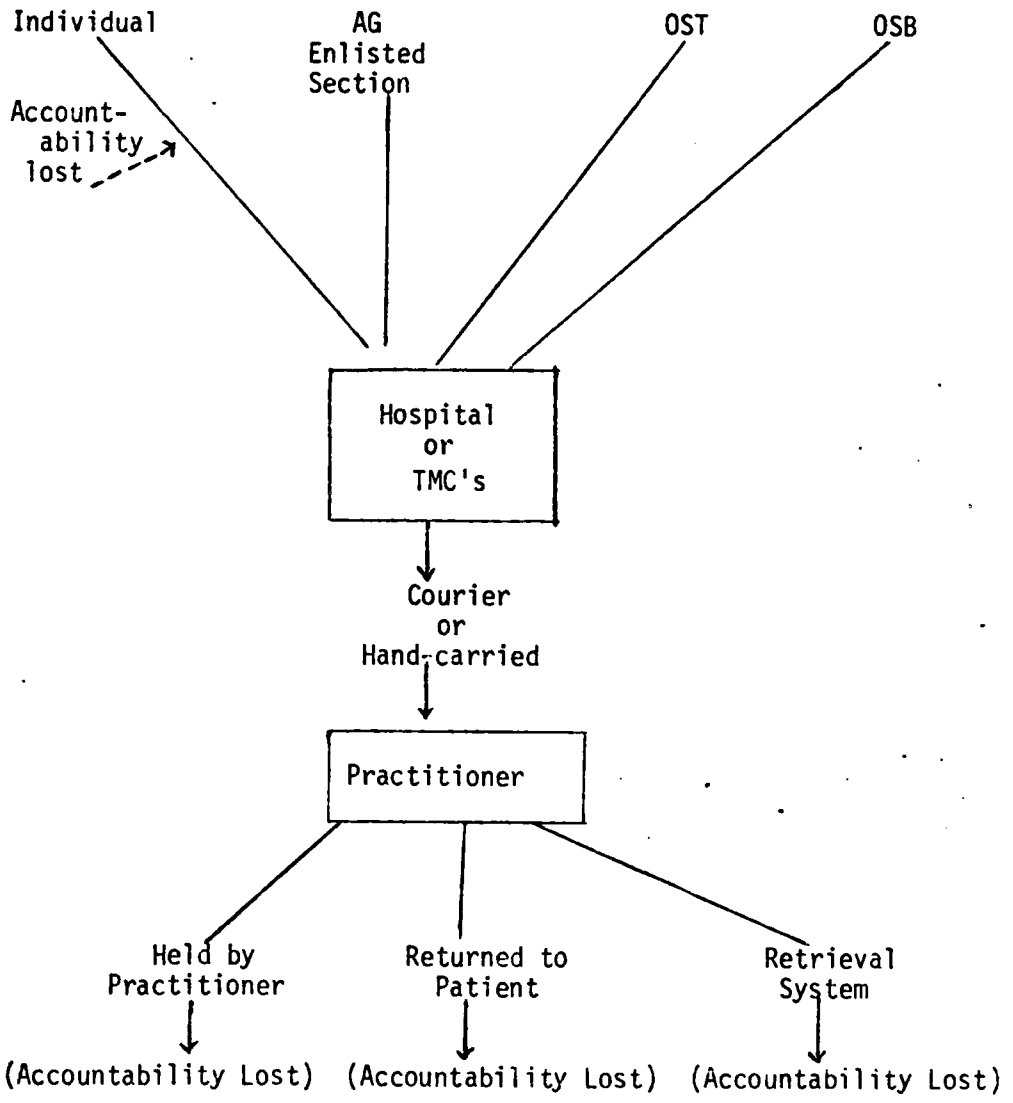
COURIER SCHEDULE

Time	Route	MON	TUES	WED	THURS	FRI
0700	TMP (Pick up vehicle)					
0730	PAD/CORS/ CSD/CPC					
0830	TMC-3 OST TMC-4 TMC-1 TMC-5 TMC-2 X-ray CORS Clinics					
1100	Lunch					
1200	CORS TMC-3 OST TMC-4 TMC-1 TMC-5 TMC-2	Standard route	Standard route, plus pick up and deliver CMS and linen supplies to TMC's	Standard route, plus pick up and deliver pharmacy supplies to TMC's.	Same as Tuesday	Same as Wednesday
1445	CMS					
1530	TMP					
1600	Off duty					

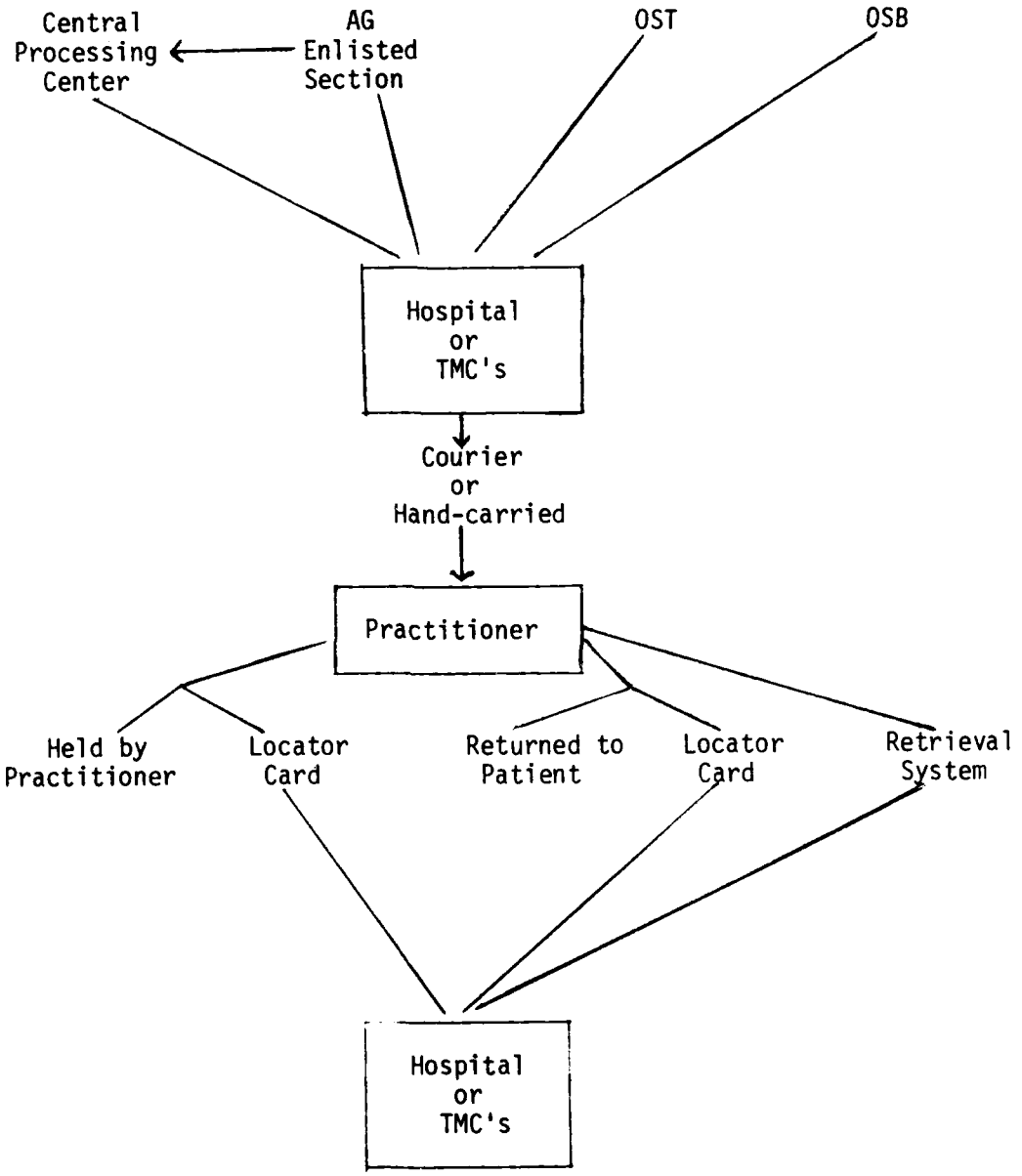
APPENDIX P

HEALTH RECORD CONTROL MODELS

EXISTING HEALTH RECORD CONTROL MODEL



PROPOSED HEALTH RECORD CONTROL MODEL



BIBLIOGRAPHY

BIBLIOGRAPHY

Books

American Hospital Association. An Instruction Guide for Organizing Health Records. Chicago: American Hospital Association, undated.

_____. Hospital Medical Records: Guidelines for Their Use and Release of Medical Information. Chicago: American Hospital Association, 1972.

_____. Medical Record Departments In Hospitals: Guide to Organization. Chicago: American Hospital Association, 1962.

Huffman, Edna K. Medical Record Management. 6th ed. Chicago: Physicians' Record Company, 1976.

Joint Commission on Accreditation of Hospitals. Accreditation Manual for Hospitals. Chicago: Joint Commission on Accreditation of Hospitals, 1978.

Journals

Herr, Conrad E. A., and Patrikas, Elaine O. "Keeping Track of Ambulatory Care." Hospitals, (March 1, 1975), 89-92.

Neely, Betty J. RRA. "Medical Records Services, Present and Future." Medical Record News, (April 1974), 27-30.

Stephens, Betty. "A Simplified Health Information System for Outpatient Services." Annals of Tropical Medicine and Parasitology, (January 1978), 98-99.

Witte, L. M., and Goldman, J. B. "Minicomputer Controls Medical Record Maneuvers." Hospitals, (September 16, 1977), 119-122.

Government Publications

U. S. Department of the Army. Health Records. Army Regulation 40-403. Washington, D. C.: Government Printing Office, 1974.

_____. Organization and Function Manual. Fort Sill Medical Activity Regulation 10-1. Fort Sill, OK: 1978.

_____. Outpatient Medical Records Improvement Actions, Ambulatory Patient Care Program. US Army Health Services Command APC Model No. 5. Fort Sam Houston, TX: US Army Health Services Command, 1977.

_____. Patient Administration. Army Regulation 40-400. Washington, D. C.: Government Printing Office, 1978.

_____. Staffing Guide for U. S. Army Medical Department Activities. Department of the Army Pamphlet 616-557. Washington, D. C.: Government Printing Office, 1974.

_____. Table of Distribution and Allowances, Fort Sill MEDDAC. Fort Sam Houston, TX: US Army Health Services Command, 1979.

Other Sources

Brooke, Paul P. Jr. "A Study to Determine Methods of Establishing Management Control Over Outpatient Medical Records Maintained at the Central Outpatient Records Room, Brooke Army Medical Center, Fort Sam Houston, Texas." Unpublished Masters Thesis, Baylor University, August, 1976.

Monk, Merrill E. "A Study to Determine Appropriate Methods for Improving the Accountability, Control, and Distribution of Outpatient Treatment Records at the U. S. Army Hospital, Fort Polk, Louisiana." Unpublished Masters Thesis, Baylor University, August, 1976.

Sheek, Alton J. "Control Procedures of Outpatient Records at Fitzsimons Army Medical Center, Denver, Colorado." Unpublished Masters Thesis, Baylor University, August, 1974.